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ABSTRACT

This performance report for program year 1994 outlines the accomplishments and benefits to individuals in Missouri of the state's vocational-technical education program. The report records enrollment information, projects conducted, accomplishments, and future needs for the following areas: (1) performance standards and core measures; (2) secondary, postsecondary, and adult programs; (3) single parents, displaced homemakers, and single pregnant women; (4) sex equity; (5) criminal offenders; (6) special populations; (7) state leadership and professional development; (8) community-based organizations; (9) consumer and homemaking education; (10) tech prep; (11) integrating applied academics into vocational education; and (12) career guidance and counseling. In addition, 13 appendixes contain 22 tables that provide enrollment information by program area, level, and sex as well as information about single parent, displaced homemaker, sex equity, tech prep, and exemplary programs. Some accomplishments recorded in the state include the following: provision of services to at-risk students at 42 student centers, a system of industry (customized) training programs, a network of seven regional and two metropolitan centers providing a comprehensive program of services for single parents and displaced homemakers, and the establishment of 21 formal assessment centers in high schools, area vocational schools, and community colleges throughout the state to evaluate students and help place them in appropriate training programs. (KC)

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MISSOURI VOCATIONAL EDUCATION ANNUAL PERFORMANCE REPORT 1994

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VOCATIONAL EDUCATION
ANNUAL
PERFORMANCE REPORT

FISCAL YEAR 1994

DECEMBER, 1994

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DIVISION OF VOCATIONAL AND ADULT EDUCATION

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PREFACE

Missouri's vocational education delivery system provided a full-range of programs, services, and activities for individuals attending secondary and postsecondary/adult institutions during Fiscal Year 1994. The system was comprised of 436 local education agencies. These local education agencies included 415 comprehensive high school districts (53 with area vocational schools), 12 community college districts (4 with area vocational schools), 7 four-year institutions, and 2 state agencies. These local education agencies offered course-work in Agricultural Education, Business Education, Health Occupations Education, Home Economics Education, Industrial Education, and Marketing and Cooperative Education. The course-work in these major occupational areas included more than 175 sub-areas as identified by the National Center for Education Statistics, "Classification of Instructional Programs".

One of the major components of the delivery system is a network of 57 area vocational schools. This network provides an economical source of instruction which was available to the citizens within each area vocational school's service delivery area. The area vocational schools are strategically located throughout the state to provide specialized skill training for almost every geographic location. Ninety-five percent (95%) of the state's citizens reside within 25 minutes of an area vocational school.

In Fiscal Year 1994, $22,346,866 federal, $38,443,844 state, and $78,124,109 local funds were expended to support vocational education programs, services, and activities. Enrollment in vocational education programs included 116,904 secondary students, 62,444 postsecondary students, and 93,190 adults. Sixty-four and six-tenths percent (64.6%) of individuals who exited vocational education course-work in Fiscal Year 1993 were available for employment, two and four-tenths percent (2.4%) were unavailable for employment, twenty-nine and eight-tenths percent (29.8%) continued their education and three and two-tenths percent (3.2%) enlisted in the armed forces of the United States: Eighty-four percent (84%) of the students who were seeking gainful employment were employed/placed.

Specialized programs and services were operated within the delivery system to meet state-level priorities for vocational education and economic development. Some of these specialized programs and services included:

1. Forty-two (42) "at-risk" student centers, within the area vocational school network, provided specialized instruction to meet the needs of secondary students and adults who have been identified as being "at-risk" of educational failure or dropping out of school. These centers combined academic instruction, vocational education instruction, intensive counseling, and supportive services designed to enable these individuals to successfully complete their schooling. During Fiscal Year 1994, 3,489 "at-risk" students were enrolled in the programs and services provided by these centers.

2. A system of industry (customized) training provided specialized skill training to meet the training and retraining needs of business and industry through the state. This system was designed to enable a variety of local education agency and business/industry representatives to work cooperatively to provide funding for the skill training necessary to meet the workforce needs of new or expanding companies. Many of the state's industry (customized) training needs were centered in the two metropolitan areas of Kansas City and St. Louis. To facilitate the delivery of industry training in these two (2) areas of the state, two (2) high technology training resource centers continued to coordinate the efforts of local education agencies and business/industry to develop specialized vocational skill training and retraining. During Fiscal Year 1994, 27,600 employees were trained for 188 companies.

3. A network of seven (7) regional and two (2) metropolitan centers provided a comprehensive program of services for single parents and displaced homemakers within the state to obtain vocational training, and find and/or keep gainful employment. The role of the regional and metropolitan centers was to assist individuals who were facing unplanned economic changes in their family lives. The major purpose was to assist the single parent and displaced homemaker in planning careers that offer more job security, higher pay, and employment success. Specific services include assistance to identify a client's interests and skills, support services for finding solutions to clients' special concerns, and vocational training tuition assistance for qualified applicants. These regional and metropolitan centers offered career development services to those who were considering "nontraditional" job training. During Fiscal Year 1994, these regional and metropolitan centers served at least 7,005 individuals with a variety of supportive services.

4. Twenty-one (21) formal assessment centers have been established in comprehensive high schools, area vocational schools and community colleges to provide enhanced services for students with disabilities and who are disadvantaged throughout the state. These centers evaluated student aptitude, interest, and ability in order to make the most appropriate placement of these students into vocational training programs and/or employment.

The Missouri vocational education delivery system provided the state's citizens and business/industrial community a mechanism to train a modern labor force and attract new and expanding business and industry. Its structure, scope, and organization has been diverse and extensive; yet flexible enough to meet the needs of individuals and the economic development needs of the business and industry community.

TABLE OF CONTENTS

PERFORMANCE STANDARDS AND CORE MEASURES
Title I, Part B, Sections 115 and 116; Title V, Part B, Section 512 Accomplishments 1

SECONDARY, POSTSECONDARY, AND ADULT OCCUPATIONAL PROGRAMS, SERVICES, AND ACTIVITIES
Title II, Part C, Sections 231-232 Accomplishments 9

SINGLE PARENT, DISPLACED HOMEMAKER AND SINGLE PREGNANT WOMEN
Title II, Part B, Section 221 Accomplishments 13

SEX EQUITY PROGRAMS
Title II, Part B, Section 222 Accomplishments 17

CRIMINAL OFFENDERS
Title II, Part B, Section 225 Accomplishments 21

SPECIAL POPULATIONS
Title I, Part B, Section 118 Accomplishments 23

STATE LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Title II, Part A, Section 201 Accomplishments 29

COMMUNITY BASED ORGANIZATIONS
Title III, Part A, Sections 301 - 302 Accomplishments 31

CONSUMER AND HOMEMAKING EDUCATION
Title III, Part B, Sections 311 - 313 Accomplishments 33

TECH PREP
Title III, Part E, Sections 341-347 Accomplishments 37

INTEGRATING APPLIED ACADEMICS INTO VOCATIONAL EDUCATION
Title I, Part B, Section 116, Title II, Part A, Section 201; and Title II, Part C, Sections 235 and 240 Accomplishments 47

CAREER GUIDANCE AND COUNSELING
Title II, Title III, Part C, Sections 321-323 Accomplishments . . . 51

APPENDIX 55

Appendix A, Table I: Total 1993-94 Vocational Education Enrollment by Program Area and Instructional Level A.1

Appendix A, Table II: 1993-94 Agricultural Education Enrollment by CIP and Level A.2

Appendix A, Table III: 1993-94 Business Education Enrollment by CIP and Level A.3

Appendix A, Table IV: 1993-94 Marketing and Cooperative Education Enrollment by CIP and Level A.4

Appendix A, Table V: 1993-94 Health Occupations Education Enrollment by CIP and Level A.5

Appendix A, Table VI: 1993-94 Occupational Home Economics Education Enrollment by CIP and Level A.6

Appendix A, Table VII: 1993-94 Consumer Home Economics Education Enrollment by CIP and Level A.7

Appendix A, Table VIII: 1993-94 Industrial Education Enrollment by CIP and Level A.8

Appendix A, Table IX: 1993-94 Students Receiving Special Needs Services A.11

Appendix A, Table X: 1993-94 Individuals Receiving Single Parent/Displaced Homemaker and Gender Bias Services A.12

Appendix B, Table I: Vocational Education Follow-Up, Summary of Follow-Up by Type and Cip Code (1993 Secondary Exiters) . . .B.1

Appendix B, Table II: Vocational Education Follow-Up, Summary of Follow-Up by Type and CIP Code (1993 Postsecondary Exiters) .B.3

Appendix B, Table III: Vocational Education Follow-Up, Summary of Follow-Up by Type and CIP Code (1993 Adult Exiters) B.5

Appendix B, Table IV: Vocational Education Follow-Up Summary of Follow-Up by Type and CIP Code (1993 Secondary, Postsecondary, and Adult Exiters, Statewide Totals) B.6

Appendix C: Missouri Performance Standards and Measures for Vocational Education C.1

Appendix D, Table I: 1993-94 Female Vocational Education Enrollment by Level D.1

Appendix D, Table II: 1993-94 Male and Female Enrollment in Vocational Education Programs by Level D.2

Appendix D, Table III: Fiscal Year 1994 Clients Served by Single Parent/Displaced Homemaker Programs D.3

Appendix D, Table IV: Fiscal Year 1994 Federal Funds Expended for Single Parent and Displaced Homemaker Programs by Service Category D.4

Appendix E: Single Parent and Displaced Homemaker Regional Centers E.1

Appendix F: Model Single Parent or Displaced Homemaker Client Intake Form F.1

Appendix G: Model Single Parent or Displaced Homemaker Client Determination of Greatest Need Form G.1

Appendix H, Table I: Students Receiving Services/Vocational Training Nontraditional To Their Gender (Sex Equity) . . . H.1

Appendix H, Table II: Percent Female Enrollment In "Nontraditional" Programs, Significant Enrollment - Above 5 Percent H.2

Appendix H, Table III: Percent Male Enrollment In "Nontraditional" Programs, Significant Enrollment - Above 5 Percent H.4

Appendix H, Table IV: Fiscal Year 1994 Federal Funds Expended on Programming for "Nontraditional" Females, "Nontraditional" Males, Girls and Women 14-25 . . . . H.5

Appendix I: Statewide Sex Bias and Stereotyping Projects . . . I.1

Appendix J: Exemplary Programs J.1

Appendix K: Missouri School Improvement Program K.1

Appendix L: Status of Tech Prep in Missouri 1993-94 . . . . . . L.1

Appendix M: 1994 Secondary Enrollment M.1

Appendix M: 1994 Postsecondary Enrollment M.3

PERFORMANCE STANDARDS AND CORE MEASURES

TITLE I, PART B, SECTIONS 115 AND 116; TITLE V, PART B, SECTION 512

ACCOMPLISHMENTS

In November, 1991, in response to a provision of the Carl D. Perkins Vocational and Applied Technology Education Act, the Department appointed a fourteen (14) member Committee of Practitioners to assist the Department with the development of the statewide system of core standards and measures of performance for vocational education. This Committee consists of two (2) members representing each of the following interest groups: local education agencies, school administrators, vocational and special population teachers, local boards of education, institutions of higher education, parents, and vocational education students. Prior to the initial meeting of the Committee of Practitioners, an internal committee was formed to prepare a draft proposal of standards and measures of performance for vocational education. The internal committee first conducted a review of the following:

1. The requirements of Sections 115, 116, and 512 of the Carl D. Perkins Vocational and Applied Technology Education Act.
2. Missouri's existing data reporting systems for vocational education (Core Data Collection System, Vocational Education Data System, and Vocational Instructional Management System/Vocational Administrative Management System).
3. The Missouri Mastery and Achievement Test (MMAT) battery of criterion-reference achievement tests for the statewide system of academic competencies and key skills.
4. The Missouri School Improvement Program standards, minimum standards for vocational education programs in Missouri, and performance standards and service requirements for JTPA.
5. The National Center for Research in Vocational Education's "Systems of Performance Standards and Accountability for Vocational Education: Guideline for Development" and other printed materials.
6. Draft performance standards and measures for vocational education collected from other states.

Upon completion of the review, multiple meetings were held to prepare the draft proposal of performance standards and measures for the Committee of Practitioners. In addition, the members of the internal committee attended a national meeting conducted by the National Center for Research in Vocational Education that focused upon the development of standards and measures of performance for vocational education. The Committee of

Practitioners met on two (2) occasions during the Winter of Fiscal Year 1992. During the first meeting, the Committee members were oriented to their task of assisting the Department with the development of the statewide system of core standards and measures of performance, and to review and discuss the draft proposal of performance standards and measures prepared by the internal committee. The draft proposal contained numerous performance measures, specific standards, and adjustments; proposed implementation procedures; and positive and negative implications regarding each standard/measure. The Committee of Practitioners discussed each standard/measure, rejected several, determined that they should be grouped by type of program/service, and agreed to review the remaining standards/measures for a discussion and formal recommendation to the Department at another meeting. During the second meeting of the Committee of Practitioners, the Committee members discussed each of the revised performance standards and measures from their previous meeting. The Committee made several suggestions for modification and implementation, and formally recommended the modified performance standards and measures for vocational education which are contained in Appendix C of this report. Fiscal Year 1993 was determined by the Department to be the initial implementation year for the performance standards and measures for vocational education with full implementation to begin in Fiscal Year 1994. Primarily, initial implementation focused upon operational assessments and base-line data collection to determine the general level of standard attainment for vocational education program operators. During the annual Summer inservice conference of the Missouri Vocational Association a preliminary explanation of the performance standards and measures was provided to one hundred thirteen (113) statewide vocational education administrators. This presentation was the first introduction of the standards to local program operators. During this meeting each standard and measure was explained and general information regarding implementation was given. Later in October 1993, a meeting in conjunction with the Missouri Council of Vocational Administrators' Fall Conference was held to further explain the performance standards and measures implementation. Two hundred and five (205) vocational education administrators attended this meeting. During January, 1993, the Department conducted four (4) regional informational meetings regarding the implementation of the performance standards and measures for vocational education. These meetings had a combined attendance of one hundred twenty-seven (127) vocational education administrators and teachers. Originally the performance standards and measures for vocational education were developed to apply to all vocational education programs operated within the State. However, when the final regulations for the Carl D. Perkins Vocational and Applied Technology Education Act were published, it was determined that the performance standards and measures would be applicable to vocational education programs that were supported by federal vocational education funds. For the most part, the federal vocational education funds were not utilized in direct support of vocational education programs. Most of the federal funds were utilized to support services and activities; therefore, the Department initiated a "General Rule" in order to provide guidance to local vocational education program operators in determining which vocational education programs would be implicated. This "General Rule" is included at the end of Appendix C of this report. In order to provide an explanation of the status for Fiscal Years 1993 and 1994 regarding the implementation of the performance standards and measures for vocational education, it will be necessary to explain the status of each of the standards individually.

PERFORMANCE STANDARDS FOR PREPARATORY VOCATIONAL EDUCATION PROGRAMS

Standard I.1 All vocational education students enrolled in preparatory vocational education programs/courses will demonstrate attainment of basic and advanced academic skills in mathematics, English/communications, science, and social studies/science.

A. Secondary students will demonstrate mastery of _________ percent (____%) of the key skills on the 10th grade Missouri Mastery and Achievement Test at the 12th grade.

B. Postsecondary students will demonstrate mastery of ________ percent (____%) of the skills on an institutionally identified and Department approved academic assessment at the completion of a vocational education program of study.

Standard I.2 All vocational education students enrolled in preparatory vocational education programs/courses will demonstrate gain in basic and advanced academic skills in mathematics, English/communications, science, and social studies/science.

A. Secondary students will demonstrate at least a ______ point scaled score between the 10th grade and 12th grade on the 10th grade Missouri Mastery and Achievement Test.

B. Postsecondary students will demonstrate a ______ percent (____%) gain between entry into and completion of a vocational education program of study on an institutionally identified and Department approved academic assessment instrument.

With regard to the secondary level of Standards I.1 and I.2, the Department contracted with the Center for Educational Assessment (CEA) at the University of Missouri-Columbia to initiate a statewide assessment of all 12th grade students enrolled in vocational education who had previously taken the 10th grade Missouri Mastery and Achievement Test (MMAT). Thus far, assessments have been conducted from February through March in 1993 and 1994. These assessments measured student mastery of key skills and competencies in language arts, mathematics, science, and social studies. The data gathered from these two (2) assessments were analyzed by CEA and the results follow:

1993 ASSESSMENT	MASTERY RATE	PRE-TEST NCE	POST-TEST NCE	NCE CHANGE
English/Language	50%	49.8	49.7	-0.1
Mathematics	40%	49.7	49.7	0.0
Science	25%	49.8	49.7	-0.1
Social Studies	35%	49.7	49.8	0.1

1994 ASSESSMENT	MASTERY RATE	PRE-TEST NCE	POST-TEST NCE	NCE CHANGE
English/Language	50%	49.3	49.1	-0.2
Mathematics	40%	53.1	49.2	-3.9
Science	25%	54.8	48.2	-6.6
Social Studies	30%	51.3	48.3	-3.0

As can be seen, the academic attainment level and gain for the median secondary vocational education student do not meet the standards, therefore, efforts regarding increased integration of academic and vocational education must continue. It should be noted, however, that there is considerable concern that the students at grade twelve do not seriously attempt to respond correctly to any of the questions on the test since it does not effect their individual outcome or completion of vocational education programs. Additional consideration regarding the use of the MMAT and the administration of this or any other academic skill assessment must take place.

With regard to the postsecondary level of Standards I.1 and I.2, the Department requested each institution to identify the assessment instrument to be used to measure academic attainment and gain of vocational education students, and to utilize these during Fiscal Years 1993 and 1994 on a pre-test and post-test basis. The Department is currently analyzing preliminary data from several postsecondary programs to determine the appropriate methods of reporting the locally collected data from the variety of assessment instruments so that statewide comparisons can be made. It should be noted that at this level student assessment apathy does not seem to be a factor. Through a preliminary review of the raw data collected, it appears that a reasonable level of academic skill attainment and gain is occurring within the postsecondary level.

The Department will need to finalize the analysis of all secondary and postsecondary data to make recommendations to the Committee of Practitioners to establish the appropriate attainment and gain levels for these two (2) standards. In addition, the Committee of Practitioners will need to determine possible alternatives to the use of MMAT at the secondary level.

Standard I.3 All vocational education students enrolled in preparatory vocational education programs/courses will demonstrate mastery of eighty percent (80%) of the essential occupational and employability skills necessary for entry-level employment as identified by the district/institution and approved by the Department.

To implement Standard I.3, the Department requested that each institution, with the assistance of local program advisory committee members, identify the essential occupational skills/competencies for each of the vocational education programs that are operated and forward the listings to the Department. Also, institutions were instructed to establish student mastery determination procedures and report student mastery of the identified essential occupational skills/competencies. The statewide results regarding occupational skill attainment indicated that in 1993 ninety and three-tenths percent (90.3%) and in 1994 eighty-seven and eight-tenths percent (87.8%) of the completing vocational education students met the standard of eighty percent (80%) occupational skill attainment. The Department is currently utilizing the essential skill listings forwarded by the institutions, with the assistance of thirty-five (35) statewide business/industry technical committees, to establish Department approved listings of essential occupational skills for each vocational education program.

Standard I.4 The proportion of participation of individuals who are members of special populations groups in preparatory vocational education programs/courses is equal to or greater than the proportion of their membership in the relevant district/institution population.

Each institution provides a special populations report to the Department, as a part of the local application to access Title II, Part C distribution funds. These reports provide data regarding the number of "special population" individuals in the general population, as well as individuals enrolled in vocational education. Each institution provided this data for analysis to the Department for Fiscal Years 1992 through 1994. The current statewide participation rates of students with disabilities and those who are academically and economically disadvantaged are nine and one-tenth percent (9.1%) disabled and approximately thirty-five percent (35%) disadvantaged students enrolled in vocational education as compared to thirteen and four-tenths percent (13.4%) disabled and thirty and six-tenths percent (30.6%) disadvantaged individuals in the relevant population.

Standard I.5 The rate of placement of students who have enrolled in preparatory vocational education program/courses into employment, further training/education or military service will be eighty-five percent (85%).

As a part of the Department's regular vocational education data collection activities, each institution reports the results of their annual placement follow-up activities. This data was submitted to the Department for analysis by all institutions. The current statewide placement rate of vocational education exiters/completers is eighty-seven and one-tenth percent (87.1%).

Because of the Department's decision to restrict the application of the performance standards to those implicated by federal vocational education funding as indicated in the federal regulations, this standard would only be utilized if supplemental programs would benefit from federal vocational funding. Currently, supplemental vocational education programs do not benefit from federal vocational education funds.

PERFORMANCE STANDARDS FOR SUPPLEMENTAL VOCATIONAL EDUCATION PROGRAMS

Standard II.1 All vocational education students enrolled in a supplemental vocational education program/course will demonstrate mastery of eighty percent (80%) of the occupational skills identified by the district/institution.

Because of the Department's decision to restrict the application of the performance standards to those implicated by federal vocational education funding as indicated in the federal regulations, this standard would only be utilized if supplemental programs would benefit from federal vocational funding. Currently, supplemental vocational education programs do not benefit from federal vocational education funds.

PERFORMANCE STANDARDS FOR CORRECTIONS PROGRAMS

Standard III.1 The rate of placement of criminal offenders participating in corrections programs into employment or training for employment will be seventy percent (70%) within one hundred eighty (180) days after their release from incarceration.

Each of the correctional institutions were instructed by the Department to establish placement follow-up systems during Fiscal Year 1993 to be able to report client placement data at the end of Fiscal Year 1994. Each of the correctional institutions have established these systems and reported the following for youth and adults who participated in corrections programs and were released from incarceration:

- 89% of the adult participants exiting the Department of Corrections programs were placed in positive placements.

- 62% of the youth participants exiting the Division of Youth Services programs were placed in positive placements.

PERFORMANCE STANDARDS FOR PROGRAMS FOR SINGLE PARENTS, DISPLACED HOMEMAKERS, SINGLE PREGNANT WOMEN, AND GIRLS/WOMEN AGES 14-25; AND PROGRAMS DESIGNED TO ELIMINATE SEX BIAS AND STEREOTYPING IN VOCATIONAL EDUCATION

Standard IV.1 A two percent (2%) annual increase in the number of participants being served will be achieved by programs for single parents, displaced homemakers, single pregnant women, and girls/women ages 14-25; and programs designed to eliminate sex bias and stereotyping in vocational education.

Each of the regional centers that have been funded with federal single parent or equity funds have established a computerized data system to provide the Department with the number of participants that are being served by their programs and services. This information has been forwarded to the Department for analysis by each of the regional centers. An analysis of the data indicates that from a statewide perspective this standard has not been met. As indicated in the "Single Parent, Displaced Homemaker and Single Pregnant Women" and "Sex Equity Programs" sections in this report, an overall decrease in vocational education enrollment has proportionally impacted the participation of these populations with a four and eight-tenths percent (4.8%) decline in single parents, displaced homemakers, and single pregnant women; and an eleven and two-tenths percent (11.2%) decline in "nontraditional" students.

PERFORMANCE STANDARDS FOR COMMUNITY-BASED ORGANIZATION PROGRAMS

Standard V.1 The rate of placement of clients into employment or training for employment will be seventy percent (70%) within ninety (90) days after conclusion of their participation in community-based organization program/services.

Each of the community-based organization projects were instructed by the Department to establish placement follow-up systems during Fiscal Year 1993 to be able to report client placement data at the end of Fiscal Year 1994. Each of the twenty-one (21) community-based organization projects have established these systems and reported that, from a statewide perspective, seventy-eight percent (78%) of the youth that participated and exited were placed in positive placements.

PERFORMANCE STANDARDS FOR CONSUMER AND HOMEMAKING PROGRAMS

Standard VI.1 The percentage of participation of secondary students enrolled in at least one Department approved consumer and homemaking course shall increase one percent (1%) annually at the local education agency (district) level.

Based upon the Department's decision to restrict the application of performance standards to vocational education programs supported by federal vocational education funds, only Department approved consumer and homemaking programs receiving Title II, Part B grants would be responsible for meeting this standard. The Department's current vocational education data collection system provides enrollment data on all Department approved vocational education programs, therefore, all institutions which have received grants have provided the appropriate enrollment data to the Department for analysis. An analysis of the data indicates that from a statewide perspective this standard has not been met. Consumer and homemaking education programs experienced a three and eight-tenths percent (3.8%) decline in enrollment during Fiscal Year 1994.

PERFORMANCE STANDARDS FOR TECH PREP EDUCATION

Standard VII.1 The annual retention rate of students continuing to participate in a tech-prep education program (two years at the secondary level plus two years at the postsecondary level) will be eighty percent (80%).

The Department has funded twelve (12) tech-prep education consortia through the use of Title III, Part E funds. Some of these consortia were in the developmental stage and did not have students that have been identified as participants in tech-prep education during Fiscal Year 1994. Other consortia have enrolled students for the first time and are unable to report on retention rates. Each tech-prep education consortia was instructed by the Department to establish student tracking systems to report student retention data to the Department. Currently, these systems are in being developed and will identify students as being participants in tech prep education, to provide the data to the Department for analysis.

The Department is experiencing difficulty in fully implementing the statewide system of standards and measures of performance for vocational education. Currently, the Department is in the process of establishing responsive a data analysis and reporting system to be able to inform each institution of its achievement relating to each of the performance standards and measures in order to establish base-line status, and a process of initiating annual improvement activities. This system will allow for full implementation of the performance standards within the state.

SECONDARY, POSTSECONDARY, AND ADULT OCCUPATIONAL PROGRAMS, SERVICES, AND ACTIVITIES

TITLE II, PART C, SECTIONS 231-232

ACCOMPLISHMENTS

Missouri's vocational education delivery system provided a full-range of programs, services, and activities for individuals attending secondary and postsecondary/adult institutions during Fiscal Year 1994. The system was comprised of 436 local education agencies (LEAs). These LEAs included 415 comprehensive high school districts (53 with area vocational schools), 12 community college districts (4 with area vocational schools), 7 four-year institutions, and 2 state agencies. These LEAs offered course-work in Agricultural Education, Business Education, Health Occupations Education, Home Economics Education, Marketing and Cooperative Education, and Industrial Education. The course-work in these major occupational areas included more than 175 sub-areas as identified by the National Center for Education Statistics, "Classification of Instructional Programs".

In Fiscal Year 1994, $22,346,866 federal, $38,443,844 state, and $78,124,109 local funds were expended to support vocational education programs, services, and activities. Enrollment in vocational education programs included 116,904 secondary students, 62,444 postsecondary students, and 93,190 adults. Sixty-four and six-tenths percent (64.6%) of individuals who exited vocational education course-work in Fiscal Year 1993 were available for employment, two and four-tenths percent (2.4%) were unavailable for employment, twenty-nine and eight-tenths percent (29.8%) continued their education and three and two-tenths percent (3.2%) enlisted in the armed forces of the United States. Eighty-four percent (84%) of the students who were seeking gainful employment were employed/placed. Additional enrollment data is located in Appendix A, Tables I through X, and placement data is located in Appendix B, Tables I through IV of this report.

The Missouri vocational education delivery system provided the state's citizens and business/industrial community a mechanism to train a modern labor force and attract new and expanding business and industry. Its structure, scope, and organization has been diverse and extensive; yet flexible enough to meet the needs of individuals and the economic development needs of the business and industry community.

Of the basic grant, a total of $14,690,779 was allocated to the 436 local education agencies within the state, seventy percent (70%) ($10,283,546) to LEAs operating secondary vocational education programs and thirty percent (30%) ($4,407,233) to LEAs operating postsecondary/adult vocational education programs. Based upon the provisions of the Title II, Part C distribution, 18 postsecondary institutions met the minimum postsecondary distribution criteria and submitted continued local applications that were approved. Of the 18 approved local postsecondary applications, two (2) were from school districts operating significant adult vocational education programs, one (1) was from a state technical college, 12 were from community college districts, and three (3) were from four-year institutions providing vocational education associate degree programs. None of the remaining postsecondary institutions that did not meet the minimum distribution criteria requested waivers. Of the 415 comprehensive high school districts that provide secondary vocational education, 274 did not meet the minimum secondary distribution criteria. All of the secondary LEAs that previously formed consortia during Fiscal Year 1992 and continued in Fiscal Year 1993 submitted continuing local applications that were approved. Two (2) single comprehensive high school districts that received Title II, Part C funds during Fiscal Year 1993 chose to join with other previously formed consortia. No additional waiver requests were submitted by secondary LEAs. Only the original seven (7) LEAs that were granted waivers in Fiscal Year 1992 continued through Fiscal year 1994. A total of 100 continuing secondary local applications were approved; 53 consortia with school districts operating area vocational schools and other comprehensive high school districts, three (3) single school districts operating area vocational schools, eight (8) consortia of comprehensive high school districts, and 36 single comprehensive high school districts. One (1) comprehensive high school district which did not meet the minimum secondary distribution criteria chose not to participate.

During Fiscal Year 1994, a total of $14,301,225 Title II, Part C distribution funds was expended by eligible recipients with approved local applications, $9,944,895 secondary and $4,356,330 postsecondary. The expenditures focused upon the five (5) state goals for the use of federal funds delineated in the 1992-94 Missouri State Plan for Vocational Education. These goals were:

1. To increase the rate of participation of and the quality of supportive services for individuals who are members of special populations within the vocational education delivery system.

2. To increase and improve the quality of the integration of academic and vocational education throughout the vocational education delivery system.

3. To expand and improve the quality of training and retraining opportunities of secondary, postsecondary, and adult students, including special populations, commensurate with labor market demands.

4. To improve the quality of vocational education programs, through the improvement of vocational education curricula, instructional materials, and instructional equipment.

5. To improve the quality of a comprehensive system of guidance and placement services within the vocational education delivery system.

Of the total Title II, Part C distribution expenditures, $7,120,345 or forty-nine and eight-tenths percent (49.8%) was expended for supportive services for individuals who are members of special populations. These expenditures related to the established state goal number one for vocational education. For further detail as to the specific services provided and the numbers of individuals served, refer to the descriptions in sections "Special Populations" primarily; "Single Parent, Displaced Homemaker, and Single Pregnant Women"; and "Sex Equity Programs" in this report.

Of the total Title II, Part C distribution expenditures, $825,510 or five and eight-tenths percent (5.8%) was expended for the integration of academic and vocational education. These expenditures related to the established state goal number two for vocational education. For further detail as to these integration activities and accomplishments, refer to section "Integrating Applied Academics Into Vocational Education" in this report.

Of the total Title II, Part C distribution expenditures, $4,175,047 or twenty-nine and two-tenths percent (29.2%) was expended for program improvement activities at the local level. These expenditures related to the established state goals number three and number four for vocational education. Within this category of expenditures, eligible recipients focused on four (4) major program improvement activities. These were curriculum modification, development and/or purchase (14.1%), professional development and inservice (45.6%), equipment upgrade (36.0%), and local evaluation efforts (4.3%). The program improvement activities were also supported by $3,516,189 of local expenditures which greatly enhanced the responsiveness and quality of the vocational education delivery system in Missouri.

Of the total Title II, Part C distribution expenditures, $1,770,783 or twelve and four-tenths percent (12.4%) was expended for guidance and placement services throughout the state. These expenditures related to the established state goal number five for vocational education. For further detail as to the accomplishments in this area, refer to section "Career Guidance and Counseling" of this report.

Of the total Title II, Part C distribution expenditures, $409,540 or two and eight-tenths percent (2.8%) was expended for local administration purposes.

During Fiscal Year 1994, fifty (50) secondary, seventeen (17) adult and zero (0) postsecondary vocational education programs were established or expanded. In response to the need for improved and more closely aligned vocational education programming to the labor market, LEAs closed five (5) secondary, one (1) adult, and zero (0) postsecondary vocational education programs during Fiscal Year 1994.

SINGLE PARENTS, DISPLACED HOMEMAKERS, AND SINGLE PREGNANT WOMEN

TITLE II, PART B, SECTION 221

ACCOMPLISHMENTS

The total female enrollment in vocational education in Missouri decreased from Fiscal Year 1993 to Fiscal Year 1994 by 8,295, which represents an overall decrease of five and four-tenths percent (5.4%). The actual female enrollment by level decreased eight-tenths percent (0.8%) at the secondary level, four and nine-tenths percent (4.9%) at the postsecondary level, and eleven and six-tenths percent (11.6%) at the adult level, as shown in Appendix D, Table I.

Overall vocational education enrollment dropped from 286,427 to 272,538, representing a drop of 13,889, or a four and eight-tenths percent (4.8%) decrease, but the proportionate percentage of female enrollment remained nearly the same, fifty-three and seven-tenths percent (53.7%). Actual male enrollment decreased by 5,594, and actual female enrollment decreased by 8,295, however, the total female population continues to outnumber the total male population in vocational education programs as shown in Appendix D, Table II.

Single parent/displaced homemaker and sex bias set-aside funds served 14,672 individuals, of whom 13,932 were female. The State's core standard of performance to increase the number of participants being served through these programs and services by two percent (2%) was not achieved. However, the decrease in the number served (11%) is representative of the decrease of males and females served by vocational education programs, services, and activities at all levels as indicated above.

The greatest number of clients in the single parent/displaced homemaker population were served at the postsecondary and adult levels. Local education agencies served 7,667 single parents/displaced homemakers on the secondary, postsecondary, and adult levels. This represented a decrease of 868 from the Fiscal Year 1993 total of 8,535 individuals served. This is attributed to the general drop in vocational education enrollment for the year. The number of clients served in single parent/displaced homemaker programs is shown in Appendix D, Table III.

The program of services for single parents and displaced homemakers included outreach activities, orientation, assessment, evaluation, career decision-making and exploration, tuition, retention and support, follow-up and placement, transportation, and child care. Area vocational schools and community colleges expanded and supplemented the existing services through a planning process utilizing a planning guide at the beginning of the fiscal year. Planned activities, including expected outcomes were submitted to the Department by local education agencies operating area vocational schools and community colleges. These activities were reviewed and approved for funding. During vocational education evaluation and/or on-site monitoring visits, these plans were reviewed and the services provided were identified. Data were collected on the number of single parents and displaced homemakers that received services by the type of service provided, Classification of Instructional Program (CIP) Codes, financial aid, and demographic characteristics. In addition, follow-up data were collected 180 days after the completion of the training year.

The services provided by category in relation to the total federal dollars expended for single parents and displaced homemakers are identified in Appendix D, Table IV. Of the total $1,416,381 expended, the service categories were: thirty-six and three-tenths percent (36.3%) for certified staff salaries; twenty-three and three-tenths percent (23.3%) for non-certified staff salaries; seventeen percent (17%) for tuition; two-tenths percent (0.2%) for child care services; five-tenths percent (0.5%) for administration; and twenty-two and seventh-tenths percent (22.7%) for other services, including educational materials and transportation. The cost per participant or client was $184.74.

Forty percent (40%) of the set-aside funds were used to continue the operation of a network of seven (7) regional centers by geographic area that provided comprehensive programs, services, and activities throughout the state for single parent and displaced homemaker populations. Through this network, the entire state was geographically accessible to vocational education services to the single parent and displaced homemaker populations. Four (4) of the regional centers were housed in area vocational schools and three (3) were housed in community college districts.

Additional set-aside funds were provided for the two (2) large community college districts within the state (Metropolitan Community Colleges in Kansas City, and the St. Louis County Community College District in St. Louis City and County). It should be noted that each of these community college districts received funding approximately sixty percent (60%) more than the average amount received by any of the regional centers.

The seven (7) regional centers and two (2) metropolitan community college centers, the amounts of each award, and the number of individuals served are identified in Appendix E.

Requests for Proposals (RFPs) were issued and approved for a three-year period pending continual funding beginning in Fiscal Year 1992. Funding categories for this third and final year were as follows:

Statewide Projects -	Resource Centers	40%
	Resource Center/ Technical Assistance	3%
	Corrections	1%
	Standards & Measures	1%
District Proposals -	Area Vocational Schools	27.5%
	Community Colleges	27.5%

Local education agency RFPs were awarded in the following categories to insure sufficient size, scope, and quality of programming:

Districts operating area vocational schools with adult long-term vocational education enrollment above 100 (13 funded),

Districts operating area vocational schools with adult long-term vocational education enrollment below 100 (36 funded),

Institutions with postsecondary and/or adult vocational education enrollment of 1,000 or above (10 funded), and

Institutions with postsecondary and/or adult vocational education enrollment of 25,000 or above (2 funded).

Some of the smaller local education agencies formed consortia with the regional centers to provide services for single parents, displaced homemakers, and single pregnant women who previously did not have services available to them because of a lack of staff and resources.

A statewide project was awarded funds as follows:

Name: Project SERVE
Funding Agency: University of Missouri-Columbia
Funding Level: $42,897 (single parent/displaced homemaker)
$69,836 (sex bias)
Contact Person: Dr. Harley Schlichting
Project Objective: Provide technical assistance and resources where Single Parent/Displaced Homemaker programs are conducted. Provide an RBBS Computer Bulletin Board, a computerized data software package, and a quarterly newsletter. Develop brochures, posters, and supplemental resources.

Technical assistance and professional development activities were planned and provided for statewide delivery, on a quarterly basis, to all funded full-and part-time coordinators and counselors. State guidelines were established for certification of coordinators and counselors in single parent and displaced homemaker programs.

Professional affiliation with the administrative division of the Missouri Vocational Association was maintained. Approximately 30 coordinators and counselors participated in the association's professional development activities during Fiscal Year 1994.

Each regional center and special project submitted a quarterly and an annual report of activities, including evaluation summaries. Monitoring activities of projects were also conducted quarterly by the Special Vocational Services section staff.

The availability of quality services provided by certificated vocational educators through the network of regional centers and the provision of program and service funds resulted in improved educational placements, as evidenced by the increased number of Individual Vocational Education Plans (IVEPs) and the selection of a quality vocational education program. The effectiveness of the assessment and orientation activities has resulted in an increased number of continuing clients. The provision of supportive services such as seminars on self-concept development, the relationship between family and work, career decision-making, study skills development, et cetera has significantly increased the retention rate. The continuous contact and interest exhibited by regional center staff for clients has also contributed to the increased retention rate.

The statewide model was used in all local education agencies at the client intake phase for gathering client demographic data and the determination of greatest need. The forms for this model are included in Appendix F and G. This computerized model was used as a component part of the software package for data collection. The clients were ranked by assigning points either manually or by computer. Regional center staff utilized portable computers for client intake in numerous locations.

A special project at the Chillicothe Correctional Center provided nontraditional occupational information and a variety of services to over 50 incarcerated women. This was the third year of cooperation between the Chillicothe Area Vocational Technical School and the Chillicothe Correctional Center for women. The services offered within the correctional center included an exploratory class, "Careers in the Skilled Trades," vocational interest assessment, and career counseling. Twelve (12) students enrolled in the Applied Academics class taught at the area vocational school by the electronics instructor. The focus of this class was applied mathematics and computer usage instruction. Enrollment in long-term vocational education programs climbed to ten (10) qualified women. Vocational education programs of choice included Auto Body, Carpentry, Electronics, Farm Industrial Mechanics, Farm Management, and Welding. Job placement in related areas was approximately seventy-five percent (75%) for this group of women. Activities were coordinated between the superintendent and education supervisor from the correctional center, the director of the Chillicothe Area Vocational Technical School, and the coordinator of the Region I, Northwest Missouri Center for Single Parents, Displaced Homemakers, and Single Pregnant Women. The funding level for Fiscal Year 1994 was $14,299.

In addition, Fiscal Year 1994 was the sixth year for Missouri House Bill 1465, which provided state appropriated funds for tuition fee waivers for the training of homemakers who were in need of entering or re-entering paid employment. A total of $90,230 was spent for this program to grant fee waivers to 179 women.

SEX EQUITY PROGRAMS

TITLE II, PART B, SECTION 222

ACCOMPLISHMENTS

During Fiscal Year 1994, 7,005 students (4,321 secondary, 770 postsecondary, and 1,914 adult) received services provided by Sex Equity funds. This was a decrease of 882 students from Fiscal Year 1993. The breakout, by level, is provided in Appendix H, Table I. Of the 7,005 students served, 6,401 were "nontraditional" females and girls/women ages 14-25; and 604 were "nontraditional" males. The state core standard of performance to increase the number of participants being served annually by two percent (2%) was not achieved by the sex equity programming. The decrease is attributed to the general drop in vocational education enrollment for the year. The significant number of enrollees in vocational education programs nontraditional for their gender is identified in Appendix H, Tables II and III.

Requests for Proposals (RFPs) for the third year of funding were approved for a total amount of $626,807. Categories to insure sufficient size, scope, and quality of vocational education programming were as follows:

Statewide Projects	
Resource Center/Technical Assistance	10%
Nontraditional Technical Assistance	7%
Nontraditional Satellite Program	10%
Standards & Measures Project	1%
Local Districts	
Area Vocational Schools	36%
Community Colleges	36%

With the addition of carryover funds, it was possible to grant awards to 52 area vocational schools and community colleges, with a total expenditure amount of $632,388.

Four (4) small local education agencies (Carthage, Lamar, Monett, and Nevada) continued participation in a consortium with Franklin Technical School in Joplin, Missouri to provide services that would not be able to be offered because of a lack of staff and resources.

The program of services in the sex equity area included outreach activities, orientation, assessment, evaluation, career decision-making and exploration, tuition, retention and support, follow-up and placement, transportation, and child care. All area vocational schools and community colleges expanded and supplemented the existing services through a planning process which utilized a planning guide at the beginning of the fiscal year. Planned activities, including expected outcomes were submitted to the Department from local education agencies operating area vocational schools and community colleges. These activities were reviewed and approved for funding. During the vocational education evaluation and/or monitoring on-site visits, these plans were reviewed and the types of services provided were identified. Data were collected on the number of "nontraditional" females and males, including girls and women ages 14 to 25, the types of services provided, Classification of Instructional Program (CIP) Codes, financial aid; and demographic characteristics. Also, a follow-up was conducted 180 days after the end of the training year. The statewide follow-up data indicated the total of "nontraditional" students placed was equal to or within one (1) percentage point of all exiters. This rate of placement is an indicator of excellent, quality programming with appropriate supportive services.

The services provided, by category, in relation to the total federal dollars expended for sex equity activities are identified in Appendix H, Table IV. Of the total $632,388 expended, the service categories were: twelve and nine-tenths percent (12.9%) for certificated staff salaries; fifteen and four tenths percent (15.4%) for non-certificated staff salaries; twenty-four and two-tenths percent (24.2%) for tuition; forty-six and six-tenths percent (46.6%) for educational materials and transportation; eight-tenths percent (0.8%) for administration; and one tenth percent (0.1%) for child care. The cost per participant or student was $90.28. Tuition was restricted to males and females who enrolled in preparatory vocational education programs that were nontraditional for their gender.

CAREERS UNLIMITED/CHANGING CHANNELS (awarded to Linn Technical College) is a high-tech way to promote high-tech careers for women. It is a series of live interactive programming that features successful women in high-tech "nontraditional" jobs or educational programs. The series, produced in Missouri, aims at encouraging high school students to pursue their career goals for the changing work force. Over the past four (4) years, Missouri has had satellite teleconference broadcasts to not only Missouri schools and organizations, but also to high schools, sites, and Public Broadcast Stations all across the nation. CHANGING CHANNELS IV (Putting the Pieces Together: Tech Prep and High-Tech Careers for Women) was created to show how Tech Prep Education is connected to high-tech and nontraditional careers for women. A teleconference panel consisting of a Tech Prep Education counselor/coordinator, Marcia Pfeiffer of St. Louis Community College, female students representing the Environmental Technology program at Crowder College (Misty Sturgeon and Cathy Brower of Neosho, Missouri), and Missouri Department of Elementary and Secondary Education, Special Vocational Services Supervisor, Eunice Harris, answered questions that were called in from around Missouri. Included in the teleconference was a short video presentation introducing students to Tech Prep Education classrooms at Jefferson City and Rolla, plus highlighted nontraditional high-tech vocational education programs and careers around the State. Highlighted vocational education programs included: Chemistry Technology at St. Louis Community College; Manufacturing Machinery/Design Drafting at Heart of the Ozarks Technical Community College, Springfield; Environmental Technology at Crowder College, Neosho; Construction and Auto Technology at Joe Herndon Area Vocational Technical School, Raytown; plus footage from McDonnell Douglas, Malincrodt Pharmaceutical, and Monsanto. Featured was U. S. Air Force Lieutenant Jeannie Flynn from St. Louis. Lt. Flynn graduated first in her pilot class, completed F-15E training and was assigned to the 336th Fighter Squadron. She is the first Air Force women to complete combat aircraft training. Lt. Flynn talked about her challenges in a nontraditional, high-tech career and the importance of mathematics, science, and applied academics in the workforce. CAREERS UNLIMITED received second place in the category of Promotional Video II, 1994 Communications Awards competition, National Association of Vocational-Technical Education Communicators (NAVTEC) competition. In Fiscal Year 1994 the teleconference was broadcast to 180 sites and reached approximately 3,560 students.

Since its creation in November, 1989, Project ENTER (Educating for NonTraditional Employment Roles) has focused on establishing a marketing strategy that will help change stereotypical perceptions of the job market. With the help of its advisory committee, ENTER targets the state's vocational education instructors, counselors, and other educators; prospective students; and the general public. The project's goal is to build awareness and enhance the image of nontraditional vocational education opportunities. ENTER does this by producing and distributing such promotional materials as brochures, posters, advertisements, fliers, and newsletters. The newsletters received first place in the one-color newsletter category of NAVTEC's 1994 Communications Awards competition. Other activities included exhibiting at conferences, producing videos, promoting nontraditional student role models in the media, and providing area vocational schools and community colleges with technical assistance. ENTER also published equity-related articles in state (Missouri Schools) and national (American Careers) magazines and coordinated Missouri's second annual contest for nontraditional students, which generated 50 different news releases on nontraditional opportunities in vocational education. Project ENTER is housed at the University of Missouri-Columbia.

A collection of resources was maintained and expanded at the Sex Equity Resource Center (Project SERVE), housed at the University of Missouri-Columbia, Instructional Materials Laboratory. Professional development activities included a statewide sex equity conference, and technical assistance on a regional and national level. A statewide data collection software package for single parents, displaced homemakers, single pregnant women, nontraditional males and females, and girls and women ages 14 to 25 was maintained. A computerized bulletin board and toll-free number provided access to these populations for information searches and available resources.

A project to "Develop a Formative and Summative Evaluation Plan for Sex Equity Programs, Including Standards and Measures," awarded to the University of Missouri-Columbia, Instructional Materials Laboratory, completed the third year of a three-year grant. The document was revised and disseminated to vocational education programs throughout the state.

A summary of the statewide sex equity projects is shown in Appendix I of this report.

CRIMINAL OFFENDERS

TITLE II, PART B, SECTION 225

ACCOMPLISHMENTS

The Department of Corrections provided support services at three (3) locations. Guidance and counseling services were provided to 315 inmates at the Algoa Correctional Center, the Central Missouri Correctional Center, and the Western Missouri Correctional Center.

Guidance, counseling, career development, and placement services were provided by the Division of Youth Services for 1,299 youth at six (6) of their institutions.

The participating correctional institutions during Fiscal Year 1994 were:

Department of Corrections
P. O. Box 236
Jefferson City, Missouri 65102

Algoa Correctional Center
Jefferson City, Missouri

Central Missouri Correctional Center
Jefferson City, Missouri

Western Missouri Correctional Center
Cameron, Missouri

Division of Youth Services
P. O. Box 447
Jefferson City, Missouri 65102

Babler Lodge
Chesterfield, Missouri

Hogan Street Regional Youth Center
St. Louis, Missouri

Northwest Regional Youth Center
Kansas City, Missouri

St. Louis Regional Youth Center
St. Louis, Missouri

W.E. Sears Youth Center
Poplar Bluff, Missouri

Southwest Regional Youth Center
Springfield, Missouri

SPECIAL POPULATIONS

TITLE I, PART B, SECTION 118

ACCOMPLISHMENTS

DISABLED - SECONDARY LEVEL

During Fiscal Year 1994, 214 local education agencies were involved in providing supportive services to 5,237 secondary students with disabilities who were mainstreamed into vocational education programs throughout the state. These services included:

- guidance, counseling, career development, and placement services to ensure that students are placed in appropriate vocational education programs, assisted to successfully complete the training provided in their vocational education programs, and transition successfully from school to employment or further training;
- vocational resource educator (VRE) services to facilitate the mainstreaming process;
- basic skills instructors to provide instruction in mathematics, reading, and writing skills essential for successful completion of vocational training programs;
- professional supplemental instructors to provide the additional instruction necessary for students with disabilities to succeed in their vocational education programs; and
- vocational teacher aides, interpreters, readers, and notetakers to provide additional services, as needed.

Materials, supplies, and equipment were also provided to ensure success in vocational education for secondary students with disabilities.

In Fiscal Year 1994, the percentage of students with disabilities served in secondary vocational education programs continued to increase. Significant accomplishments were made with this population of students through the utilization of the Vocational Resource Educator (VRE) Model in the area vocational schools. VREs are charged with responsibilities involving recruitment; assessment to determine the least restrictive environment; placement into the full-range of vocational education programs depending on interests, aptitudes, and abilities; and career development which includes assistance in transition from school to work. The Division of Vocational and Adult Education and the Division of Special Education cooperate to provide funding, inservice, and technical assistance for local education agencies utilizing the VRE model. In addition, both divisions provide extensive technical assistance to local education agencies throughout the state in the development of coordinated special education and vocational education Individual Education Plans (IEPs) for students with disabilities.

Examples of some of the more successful activities, during Fiscal Year 1994, have been:

- vocational resource educators, a non-teaching professional staff member, served as resource persons in the process of mainstreaming students with disabilities. The VREs assisted with vocational education program placement, goal setting, curriculum modification, and acquisition of resource materials. The VREs also acted as a liaison with other school personnel to help students with disabilities make the transition from school to employment or further training.
- basic skills instructors provided individual or small-group instruction in mathematics, reading, and writing skills essential for successful completion of training in vocational education programs. This instruction was provided in cooperation with the regular vocational education teacher, and when concurrently students with disabilities were enrolled in vocational education programs.
- supplemental professional instructors assisted regular vocational education teachers to provide the additional instruction that students with disabilities require to succeed in their vocational education programs.
- vocational teacher aides provided assistance to regular vocational education teachers by reinforcing instruction, monitoring students at work stations in laboratories, and helping with competency testing.

DISABLED - POSTSECONDARY/ADULT LEVEL

During Fiscal Year 1994, 46 local education agencies were involved in providing supportive services to 3,687 postsecondary/adult students with disabilities who were mainstreamed into vocational education programs throughout the state. Basically, the same types of support services that were used at the secondary level were also provided to postsecondary/adult students with disabilities. Postsecondary/adult students with disabilities enrolled in vocational education programs at area vocational schools or postsecondary institutions received services provided by a VRE. The VREs who served postsecondary/adult students with disabilities worked closely with vocational rehabilitation counselors throughout the state to provide needed support services. At postsecondary institutions, a variety of special counseling services, including outreach, were provided. Many of these sites also operated approved programs to provide resource assistance, including basic skills instruction, recruitment services, appropriate vocational education program placement, and job placement assistance.

As with the secondary level students with disabilities, the more successful activities, during Fiscal Year 1994, included:

- vocational resource educators which served as resource persons in the process of mainstreaming students with disabilities. They assisted with vocational education program placement, goal setting, curriculum modification, and acquisition of resource materials. They also acted as a liaison with other school personnel to help students with disabilities make the transition from school to employment or further training.

- basic skills instructors provided individual or small-group instruction in mathematics, reading, and writing skills essential for successful completion of training in vocational education programs. This instruction was provided in cooperation with the regular vocational education teacher and when students with disabilities were concurrently enrolled in vocational education programs.

LIMITED ENGLISH PROFICIENT (LEP) - SECONDARY LEVEL

During Fiscal Year 1994, 77 secondary limited English proficiency (LEP) students were provided interpreters and bilingual tutors utilizing Title II, Part C secondary distribution funds. These services, as well as other supplementary services were provided for LEP students in conjunction with secondary disadvantaged students.

LIMITED ENGLISH PROFICIENT (LEP) - POSTSECONDARY/ADULT LEVEL

Special services for 313 postsecondary/adult limited English proficiency (LEP) students were provided by area vocational schools and community colleges. As with secondary LEP students, postsecondary/adult LEP students were served in conjunction with supportive services provided for postsecondary/adult disadvantaged students.

Special guidance, counseling, career development, and placement services were provided to postsecondary/adult LEP students for the purposes of recruitment into vocational education programs. Vocational assessment was also provided, together with career development activities. After formal vocational education training, the LEP students were provided extra help in making the transition from school to work.

DISADVANTAGED (EXCLUDING LEP) - SECONDARY LEVEL

During Fiscal Year 1994, 253 local education agencies provided supportive services for 18,521 secondary disadvantaged students throughout the state in mainstreamed vocational education programs. Secondary disadvantaged students were provided guidance, counseling, career development, and placement services to assist them to succeed in completing training in vocational education programs. These students also benefited from basic skills instruction that was provided in cooperation with the regular vocational education teacher and when they were concurrently enrolled in vocational education programs. Services such as professional supplemental instructors and vocational education teacher aides were utilized to provide these students with assistance in the classroom. In addition, extra or supportive materials, supplies, and equipment were provided. Secondary disadvantaged students participated fully in a wide range of vocational education programs. Special assistance was provided through guidance, counseling, career development, and placement services. The provision of information regarding opportunities available in vocational education began the recruitment activities. Vocational assessment was provided to help determine appropriate vocational education program placement, and student progress was monitored throughout the educational process. The services culminated with special assistance in the job/educational placement process.

Guidance, counseling, career development, and placement services assisted in ensuring that disadvantaged students were placed in appropriate vocational education programs, significantly helped them to successfully complete the training in vocational education programs, and transitioned them from school to employment or further training. Specific services in these areas included vocational assessment, occupational orientation, acquisition of career awareness and exploration materials, dropout prevention, outreach, placement and follow-up, and other essential services which were identified by the local education agencies.

Basic skills instructors provided individual or small-group instruction in mathematics, reading, and writing skills essential for successful completion of training in vocational education programs. Instruction was provided in cooperation with the regular vocational education teacher and disadvantaged students were concurrently enrolled in vocational education programs.

Supplemental professional instructors helped the regular vocational education teachers provide the additional instruction that disadvantaged students require to succeed in their vocational education programs.

Vocational teacher aides assisted the regular vocational education teachers by reinforcing instruction, monitoring students at work stations in laboratories, and helping with competency testing.

One (1) extremely successful activity to assist disadvantaged individuals was the establishment of "at-risk" student centers. An explanation of these centers is contained in Appendix J of this report.

DISADVANTAGED (EXCLUDING LEP) - POSTSECONDARY/ADULT LEVEL

During Fiscal Year 1994, 76 local education agencies provided supportive services for 22,155 postsecondary/adult disadvantaged students in mainstreamed vocational education programs throughout the state. Postsecondary/adult disadvantaged students received special services at community college sites and at area vocational schools. Guidance, counseling, career development, and placement services were also provided to assist in recruitment, orientation, assessment, appropriate placement into vocational education programs, and the employment process. Specific services in these areas included vocational awareness, occupational orientation, acquisition of career awareness and exploration materials, dropout prevention, outreach, placement and follow-up, and other essential services identified by the area vocational schools and the community colleges. Special services were provided during the training process and were followed by assistance in transition from school to work. Basic skills instructors provided individual or small-group instruction in mathematics, reading, and writing skills essential for successful completion of training in vocational education programs. This instruction was provided in cooperation with the regular vocational education teacher and concurrently when disadvantaged students were enrolled in vocational education programs. Supplemental professional instructors helped the regular vocational education teachers provide the additional instruction that disadvantaged students require to succeed in their vocational education programs. Vocational teacher aides assisted the regular vocational education teachers by reinforcing instruction, monitoring students at work stations in laboratories, and helped with competency testing.

VOCATIONAL PREPARATION PROGRAMS

State vocational education funds were used to provide vocational preparation (VoPrep) programs for secondary students who are disadvantaged or have disabilities. These programs were designed to help students acquire entry-level skills needed to succeed in existing vocational education programs at the eleventh and twelfth grade levels. These programs served 672 disadvantaged students and 440 students with disabilities during Fiscal Year 1994. Twelve (12) local education agencies (LEAs) operated programs that provided vocational preparation services to these students with special needs.

STATE LEADERSHIP AND PROFESSIONAL DEVELOPMENT

TITLE II, PART A, SECTION 201

ACCOMPLISHMENTS

The activities funded under state leadership primarily focused on two (2) areas. These were state directed curriculum and professional development.

The Department directed several curriculum development projects during Fiscal Year 1994. Thirteen (13) curriculum guides were updated and revised for use with individuals who are enrolled in vocational education programs. Also, one (1) mediated curriculum was developed which provided video modules for specialized instruction in teacher education. In addition to these specific curriculum development projects, competency profiles identifying specific occupational duties and tasks were developed in five (5) occupational areas, and a criterion-referenced test bank was developed for one (1) vocational education program area.

The professional development/inservice activities, which the Department coordinated to assist vocational educators, included primarily the provision of regional and statewide inservice workshops, conferences, and programs; the alignment of and implementation of preservice programs and seminars; and the provision of inservice courses. During Fiscal Year 1994, one (1) annual statewide vocational education conference was held involving 368 topical sessions with a total attendance of over 3,242 vocational educators. In addition, 169 state directed individual workshops, courses, conferences, and institutes, including over 138 topical sessions were provided to assist vocational education administrators and program/service area specific teachers, counselors, and placement specialists in improving the delivery of vocational education programs, services, and activities within the state. Throughout the year, more than 4,061 vocational education teachers and administrators participated in this wide variety of professional development activities.

In addition to the above mentioned activities, the state's service delivery areas private industry councils and vocational education administrators engaged in a variety of collaborative efforts during Fiscal Year 1994. Examples of activities that have continued to achieve improved coordination include:

1. Duel membership on advisory committees,
2. Use of the same assessment systems,
3. Joint annual local plan development,
4. Unified outreach and intake of participants, and
5. Cooperative operation of training programs and services.

The Department has encouraged and promoted this collaborative activity. Additionally, the Department and the Division of Job Development and Training have jointly developed and promoted an outline to provide guidance to both state agencies and local operators in meeting the mandatory coordination requirements of their respective legislation. This outline was disseminated to all agencies receiving federal employment training and vocational education funds within the state. Local education agencies within each service delivery area have been asked to enter into a written agreement with their private industry council to coordinate, share information, and conduct joint planning; as well as other collaborative efforts.

Another significant activity regarding state leadership has been the development and implementation of local evaluation systems to determine the effectiveness of vocational education program delivery at the local level. Prior to Fiscal Year 1992, the Department conducted several inservice workshops to assist vocational education administrators with the development and implementation of local evaluation systems. Through the local application process, local education agencies described, for the Department's approval, the evaluation systems that were currently being utilized. These systems provide for effective monitoring of vocational education programs, services, and activities and enable local education agencies to determine necessary alteration and resource direction to provide appropriate delivery of vocational education. In addition, in 1990 the Department implemented a unified district-level on-site review process which includes a review of vocational education programming through the use of specific resource, process, and performance standards. This process has been titled the Missouri School Improvement Program. A complete explanation of this program is contained in Appendix K of this report. During Fiscal Year 1994, seventy-two (72) local education agencies that operate vocational education programs throughout the state were reviewed, deficiencies were identified, and improvement plans were developed.

COMMUNITY BASED ORGANIZATIONS

TITLE III, PART A, SECTION 301 - 302

ACCOMPLISHMENTS

Vocational education services were provided by 23 community based organizations (CBOs) in cooperation with 21 local education agencies. The activities provided by the CBOs included outreach programs, transitional services, prevocational preparation, basic skills development, assessment, and counseling. These cooperative CBO programs served 2,085 individuals.

The distribution of the funds to CBOs was determined by a Request for Proposals (RFP) process that involved a written proposal being submitted to the Department of Elementary and Secondary Education. Each cooperating group submitting an approved proposal was awarded a grant to support activities that were directed toward the target population of severely economically or educationally disadvantaged youth, ages 16 to 21.

The cooperating local education agencies and CBOs awarded a grant during Fiscal Year 1994 were:

Arcadia Valley R-II School Dist. Ironton, Missouri	Ozark Valley Community Services, Inc. Ironton, Missouri
Camdenton R-III School Dist. Camdenton, Missouri	Lake of the Ozarks Employment Services, Inc. Camdenton, Missouri
Chillicothe R-II School Dist. Chillicothe, Missouri	Green Hills Services Trenton, Missouri
Clinton School District Clinton, Missouri	Community Counseling Clinton, Missouri
Jefferson City School District Jefferson City, Missouri	Private Industry Council, SDA 5 Jefferson City, Missouri
East Prairie R-II School District East Prairie, Missouri	Epworth Bootheel Children and Family Services Webster Groves, Missouri
Heart of the Ozarks Technical Community College Springfield, Missouri	Boys and Girls Club of Springfield Springfield, Missouri
Kansas City 33 School District Kansas City, Missouri	DeLaSalle Education Center Kansas City, Missouri
Kansas City 33 School District Kansas City, Missouri	Genesis School, Inc. Kansas City, Missouri

Lamar R-I School District Lamar, Missouri	Economic Security Corporation Joplin, Missouri
Lamar R-I School District Lamar, Missouri	MoKan Area Council/Boy Scouts of America Joplin, Missouri
Maryville R-I School District Maryville, Missouri	Community Service, Inc. Maryville, Missouri
Metropolitan Community Colleges Kansas City, Missouri	Synergy House, Inc. Parkville, Missouri
Monett R-I School District Monett, Missouri	Ozarks Area Community Action Corporation Springfield, Missouri
Raytown C-2 School District Raytown, Missouri	Ozanam Home for Boys, Inc. Kansas City, Missouri
Reeds Spring R-IV School District Reeds Spring, Missouri	Christian Associates of Table Rock Lake Kimberling City, Missouri
St. Charles Co. Community College St. Charles, Missouri	Youth In Need St. Charles, Missouri
St. Joseph School District St. Joseph, Missouri	DWB Memorial Center St. Joseph, Missouri
St. Louis City School District St. Louis, Missouri	Providence Program, Inc. St. Louis, Missouri
Salem R-80 School District Salem, Missouri	Handicapped Services Salem, Missouri
Savannah R-III School District Savannah, Missouri	Economic Opportunity Corporation of Greater St. Joseph St. Joseph, Missouri
Southeast Missouri State University Cape Girardeau, Missouri	Cape Girardeau Civic Center Cape Girardeau, Missouri
Special School District of of St. Louis County Town & Country, Missouri	Youth Employment and Health in Soulard St. Louis, Missouri

CONSUMER AND HOMEMAKING EDUCATION

TITLE III, PART B, SECTION 311 - 313

ACCOMPLISHMENTS

Vocational Home Economics Education empowers individuals and families across the life span to manage the challenges of living and working in a diverse, global society. The relationship between work and family is its unique focus. The mission of the consumer and homemaking program is to improve the quality of individual and family life skills, as well as to enhance employability skills.

Areas of instruction are provided for youth and adults in traditional classroom settings, as well as in community and outreach centers. These include food and nutrition, consumer education, family living and parenthood education, child development and guidance, housing, home management (including resource management), and clothing and textiles.

During Fiscal Year 1994, there were 643 teachers in 387 school districts with Department approved secondary vocational consumer and homemaking education programs for grades 9 through 12. These programs served 62,285 students or twenty-six percent (26%) of the total secondary students in Missouri. The Fiscal Year 1994 enrollment in all consumer and homemaking programs within the State totaled 86,769.

NUMBER OF VOCATIONAL CONSUMER AND HOMEMAKING STUDENTS SERVED IN FISCAL YEAR 1994 *

Title	Total	Male	Female	Black	White	Other	Disad.	Disab.
Comprehensive Con. & Homemaking	8,844	2,783	6,061	924	7,839	81	1,914	661
Child Development, Care & Guidance	13,454	2,992	10,462	1,856	11,458	140	2,379	576
Clothing & Textiles	2,991	438	2,553	583	2,335	73	929	206
Consumer Education	2,927	1,010	1,917	408	2,490	29	873	198
Family & Individual Health	6,104	2,363	3,741	1,486	4,566	52	1,718	623
Family Living & Parenthood	6,976	1,849	5,127	836	6,018	122	1,408	338
Food & Nutrition	12,768	4,956	7,812	2,409	10,221	138	3,195	665
Home Management	62	0	62	0	62	0	14	4
Housing, Home Furnishings & Equipment	3,426	762	2,664	291	3,113	22	619	152
Con. & Homemaking, Other	4,733	1,906	2,827	923	3,782	28	1,027	376
Totals	62,285	19,059	43,226	9,716	51,884	685	14,076	3,799

*Enrollment data is for Department approved programs.

At the adult level, consumer and homemaking education programs served 7,779 adults in Fiscal Year 1994. Program priorities were consumer education (including resource management), family living and parenthood education, and food and nutrition. One (1) community college offered a postsecondary consumer and homemaking associate degree program.

Federal Title III, Part B funds available for consumer and homemaking education were distributed to local education agencies (LEAs) on a competitive grant, RFP basis. The competitive grant system was implemented to encourage improvement, expansion, and updating of programs and services in consumer and homemaking education. There were 126 grant applications competing for these funds. The seventy (70) grants that were awarded were equitably distributed among rural and urban LEAs. Seventy-five percent (75%) of the available grant funds were distributed to fifty-five (55) LEAs within areas of the state determined to be depressed. Twenty-five percent (25%) of the grant funds were distributed to fifteen (15) LEAs within non-depressed areas.

Funded program improvement priorities included the integration of academic skills into the curriculum, programs to assist pregnant adolescents and adolescent parents to strengthen parenting skills, expanding health education relative to individual and family health concerns and issues, and leadership development activities. Many of the grants funded in the depressed areas of the state focused on updating equipment and instructional materials, adapting and implementing revised curriculum, and introducing new technology and computer-assisted instruction into the classroom.

Federal vocational education funds were utilized to serve over 3,000 individuals through outreach adult education programs. These community outreach education programs were offered to low income persons and the elderly, living in the urban areas of the state. Outreach programs included one-hour and two-hour workshops focusing on nutrition and consumer education. Instruction in daily life skills such as parenting, consumer education, nutrition and food preparation, and job seeking and retention skills was provided for homeless individuals in St. Louis. A model elder care program that operates as an outreach program to help meet the special needs of an aging population also received federal funding.

OUTREACH PROGRAMS IN CONSUMER AND ADULT EDUCATION

Programs	Total No. Served	Male	Female	Disadvantaged/ Disabled
Nutrition Education	569	20%	80%	60%
Consumer Education (Mobile Van)	1,203	34%	66%	27%
St. Patrick's Center (Transition Home)	360	2%	98%	100%
Elder Care Program	2,801	25%	75%	83%
Family Living & Parenthood	441	44%	56%	0%

Improving the quality of child care in Missouri has been a priority since the mid-1980s. The number of child care providers seeking training has continued to increase significantly. Federal funds have been combined with state funds during Fiscal Year 1994 to provide inservice training for 8,005 child care providers, including two percent (2%) males, ninety-eight percent (98%) females, and ten percent (10%) disadvantaged/disabled.

Supportive services were provided to the seven (7) Work and Family program directors in the form of inservice and limited funding. Federal funds were also used to improve Work and Family programs by providing for curriculum material development used for seminars on such issues as parenting, time management, child care, stress, money management, and wellness. A Work and Family Pre-conference seminar was provided at the annual vocational education conference attended by 41 individuals. Over 300 individuals were served through this program at their work site in Fiscal Year 1994.

State leadership activities were instrumental in providing curriculum development, personnel development activities, and providing technical assistance for improved classroom instruction. The Department directed curriculum development project, Exploring Home Economics, Supplemental Modules, for use by teachers and students in consumer and homemaking education programs was funded and completed in Fiscal Year 1994. The four (4) modules within this curriculum address the need for higher-level, problem-solving activities to supplement the Exploring Home Economics guide revised in 1994.

State leadership activities provided for inservice programs during the annual statewide vocational education conference for 387 home economics educators. Program emphasis included working with special needs students, computer-assisted instruction, critical thinking skills development, implementing a Vocational Instructional Management System (VIMS), integrating key skills into the classroom, consumer education, nutrition education, child-care providers training, implementing programs for pregnant and parenting teens, and curriculum updates.

Leadership development was provided for student members and advisors through Future Homemakers of America. There were 360 chapters with a membership of 12,063 during Fiscal Year 1994. One hundred thirty-four (134) members and advisors participated in the National Leadership Meeting in Orlando, Florida. Seven hundred twenty-one (721) members and advisors participated in the fall Cluster Meetings in Des Moines, Iowa; Little Rock, Arkansas; Columbus, Ohio; and Orlando, Florida. Approximately 1,600 students, advisors, and guests attended the annual State Leadership Conference. There were twenty-seven (27) chapters recognized during the State Leadership Conference for completing Student Body, Families, Futures, Financial Fitness, and/or Community Service Award projects. Twenty (20) students were also recognized for completing five (5) Power of One modules. One (1) advisor received recognition for being a Master Advisor and four (4) advisors received the Chapter Advisor Service Awards. Approximately 257 Future Homemakers of America members participated in State STAR (Students Taking Action with Recognition) Events during the State Leadership Conference. Ninety-eight (98) members, advisors, and parents participated in the A+ Conference at the Lake of the Ozarks. Fiscal Year 1994 was the fifth year for Alumni & Associates. Alumni & Associates evaluated STAR Events and sponsored two (2) scholarships for members to attend a Public Speaking Camp. Fifty-three (53) members participated in the June Future Farmers of America (FFA) Public Speaking Camp.

TECH PREP

TITLE III, PART E, SECTION 341 - 347

ACCOMPLISHMENTS

In Fiscal Year 1992 federal vocational education funds were available through Title III, Part E, Tech Prep Education to fund planning and implementation subgrants. A Request for Proposals (RFP) was developed and distributed to eligible recipients statewide. The competitive grant system was implemented to encourage the planning and development of a four-year (2+2) program designed to provide Tech Prep Education programs that would lead to two-year associate degrees or certificates in a systematic manner for strong, comprehensive linkages between secondary schools and postsecondary institutions. The RFP required at least two eligible recipients (one a secondary vocational education provider and one a postsecondary vocational education provider) to enter into a consortium arrangement.

Proposers were required to address the following program components:

- Be carried out under an articulation agreement between the participants in the consortium;
- Consist of the two (2) years of secondary school preceding graduation and two (2) years of higher education, or an apprenticeship program of at least two (2) years following secondary instruction, with a common core of required proficiency in mathematics, science, communications, and technologies designed to lead to an associate degree or certificate in a specific career field;
- Include the development of Tech Prep Education program curricula appropriate to the needs of the consortium participants;
- Include inservice training for teachers that is designed to train teachers to effectively implement Tech Prep Education curricula, provide for joint training for teachers from all participants in the consortium, and may provide such training in weekend, evening, and summer institutes or workshops;
- Include training programs for counselors designed to enable them to more effectively recruit students for Tech Prep Education programs, ensure that such students successfully complete such programs, and ensure that such students are placed in appropriate employment;
- Provide equal access to the full range of technical preparation programs to individuals who are members of special populations, including the development of Tech Prep Education program services appropriate to the needs of such individuals; and

- Provide for preparatory services which assist all participants in such programs.

Six (6) Tech Prep Education planning and implementation subgrants were approved and funded in Fiscal Year 1992. Each subgrant was approved for a three-year period and funding in the amount of $350,000. Expenditures for the first year of operation were not to exceed $100,000, $200,000 during the second year, and $50,000 during year three. Funding included a provision to carry over funds. Tech Prep Education planning and implementation subgrants were awarded to the following local education agencies in Fiscal Year 1992:

East Central Missouri Tech Prep Consortium
East Central College
P. O. Box 529
Union, Missouri 63084

Heart of Missouri Technical Education Consortium
State Fair Community College
3201 West 16th Street
Sedalia, Missouri 65301

Mid-Missouri Tech Prep Consortium
Linn Technical College
One Technology Drive
Linn, Missouri 65051

North Missouri Tech Prep Consortium
North Central Missouri College
1301 Main Street
Trenton, Missouri 64683

Northwest Missouri Tech Prep Consortium
High Technology Training Resource Center
The Metropolitan Comm. College
3200 Broadway
Kansas City, Missouri 64111

Southeast Missouri Tech Prep Consortium
Mineral Area College
P. O. Box 1000
Park Hills, Missouri 63601

A Request for Proposals was again developed for Fiscal Year 1993 and, following the same general guidelines as in Fiscal Year 1992, were distributed statewide to eligible recipients. Six (6) additional proposal applicants competing for planning and implementation subgrants were submitted to the Department for approval and funding. Proposals were reviewed and rated with all deficiencies identified. A meeting was held with each proposer and a complete review of the application was conducted. All six (6) proposers submitted an application addendum to address the deficiencies identified by the proposal reviewers and all six (6) Tech Prep Education planning and implementation subgrants were approved and funded. Subgrants were approved and funded following the same policies and procedures as were applied to subgrant proposers in Fiscal Year 1992. Tech Prep Education planning and implementation subgrants were awarded to the following local education agencies in Fiscal Year 1993:

Bootheel Tech Prep Consortium
Three Rivers Community College
2080 Three Rivers Boulevard
Poplar Bluff, Missouri 63901

Mid Rivers Tech Prep Consortium
Pike/Lincoln Technical Center
P. O. Box 38
Eolia, Missouri 63344

Construction Apprenticeship Tech
Prep Consortium
105 West 12th Avenue
North Kansas City, Missouri 64116

Heart of the Ozarks Tech Prep
Consortium
Heart of the Ozarks Technical
Community College
815 North Sherman
Springfield, Missouri 65802

Moberly Area Community College Tech
Prep Education Consortium
Moberly Area Community College
College and Rollins
Moberly, Missouri 65270

St. Louis Area Tech Prep
Consortium
Forest Park Community College
5600 Oakland Avenue - F324
St. Louis, Missouri 63110

A Tech Prep Education coordinator was employed in each of the 12 consortium to direct and manage the activities of each project.

In addition to the 12 full-time Tech Prep Education coordinators, two (2) additional project coordinators have been employed part-time. These project coordinators are located in a comprehensive high school and an area vocational school that serves a number of comprehensive high schools. They assist teachers and coordinate activities of the consortium.

A third annual statewide Tech Prep Education Conference was co-sponsored and conducted by the Division of Vocational and Adult Education, Department of Elementary and Secondary Education and the University of Missouri-Columbia. A total of 760 individuals attended the conference. Some 78 sessions were conducted to address areas such as integration of academic and vocational education, contextual learning, career guidance,. articulation, applied academic curriculum, and school restructuring.

During Fiscal Year 1994, bi-monthly Tech Prep Education coordinator meetings were conducted. The purpose of these meetings was to keep the lines of communication open; share ideas, concepts, and materials that work; deal with common program barriers; and plan and implement conferences and workshops within each consortium and at the state level.

In Fiscal Year 1994, 50,000 copies of the American Careers magazine (special edition for Missouri) were distributed to comprehensive high schools. This publication was used as a supplemental classroom resource for students in the 9th and 10th grades. Its purpose was to provide career information to guidance counselors and teachers to help students discover that academic knowledge, technical skills, and problem-solving abilities are absolutely necessary in the work world. Articles focused on self-awareness, career exploration, career planning, applied academics, and employability skills. A teacher's guide was also included with the publication. The activities in the guide integrate the articles with instructional programs designed to stimulate intellectual processes and develop knowledge and skills in areas of critical thinking, problem solving, goal setting, career awareness, self-awareness, self-esteem, and self-discipline. The following are comments about the American Careers magazine received from Missouri teachers and students:

- Good job! I received 50 copies which will be shared and read by 80 students. The articles in this publication are written at the right level for my students. (Velma Adjer, Iron County High School, Viburnum)

- I received 50 copies which over 100 students used. I was pleased with the high tech articles. They were just right for classroom use. (B. W. Collins, Raymore-Peculiar High School, Peculiar)

- My favorite article was "High Tech Talk". I think this magazine is a good idea. It's cool! (Inez Torres [Age 14])

Of the twelve (12) Tech Prep Education consortia approved, seven (7) are rural, four (4) are urban and one (1) is rural and urban. The seven (7) rural consortia are located at Linn, Sedalia, Trenton, Union, Park Hills, Poplar Bluff, and Moberly. The urban consortia are at Kansas City, Springfield, St. Louis, and North Kansas City. The only rural/urban consortium is located at Eolia.

Planning for Tech Prep Education programs between secondary and postsecondary institutions is primarily conducted at the consortium level. The state goal is "to develop strong comprehensive links between secondary schools and postsecondary educational institutions for the development and implementation of four-year programs designed to provide tech prep educational career paths leading to a two-year associate degree or an apprenticeship program that focuses on high-skill technical occupations".

Each consortium utilizes an administrative advisory committee to address the needs of students in each participating district. The committee is required to seek and utilize input from representatives of business, industry, and labor unions.

The concept of Tech Prep Education has been fostered through each of the consortia. Activities were designed to promote the concept which includes literally dozens of presentations by each Tech Prep Education coordinator for the public, faculty, principals, counselors, and student groups.

In 1993, the Missouri Outstanding Schools Act, adopted by the State General Assembly, calls for a wide variety of ambitious, common-sense school-reform initiatives. Some of the programs and policies adopted will take several years to fully implement, but many of the initiatives were "on-line" for the 1994-95 school year. The Tech Prep Education concept complements some of these initiatives, especially the A+ Schools section of the Act. The A+ Schools Program provides Missouri high schools the opportunity to restructure present systems to motivate and train non-college-bound youth for higher paying jobs and also answer employer's demands for more skilled workers. To achieve this goal, A+ Schools provides the opportunity to mobilize an intense partnership among high schools, community colleges, students, teachers, parents, labor, business, and communities to work together in improving and restructuring their educational system. The A+ Schools Program is expected to be popular because it complements the federally funded Tech Prep Education initiative that is already underway in many school districts across the state. Together, these efforts will promote coordination and the development of more rigorous standards by high schools, area vocational schools, and community colleges. The State General Assembly appropriated $5 million to support a first year A+ Schools grant award program.

Activities and accomplishments of the Tech Prep Education consortia include:

- Tech Prep orientation meetings conducted for each member education institution in a consortium. Several of the consortia used nationally known consultants to assist with these meetings.

- Formation of promotion committees with consortium site personnel being represented, including students. Many of the committees have selected logos and assisted in the development of recruitment tapes. Each consortium was involved with the development of an extensive volume of promotional and informational materials. Materials included newsletters, brochures, newspaper advertisements, tabloids, and information relating to applied academics and career opportunities.

- Opportunity for teachers, counselors and administrators to attend the State Tech Prep Education Conference.

- Reports that indicate the Tech Prep Education coordinators have made over a thousand presentations and are always on call to make presentations for civic groups; radio spots; student groups; and educator groups at local, state, and national levels; business groups; and school boards.

- The development of 273 articulation agreements that have been initiated through the State. Two-hundred five (205) articulation agreements which lead to an associate degree have been developed between area vocational schools and community colleges. Ninety-six (96) articulation agreements which lead to an associate degree have been developed between comprehensive high schools and community colleges. An additional 20 articulation agreements have been developed with registered apprenticeship programs. Nineteen (19) of these agreements are with area vocational schools and one (1) is with a comprehensive high school. Consortia report that 16 articulation agreements, which lead to a baccalaureate degree, have been developed and 139 articulation agreements from all the occupational areas are under development. Articulation agreements for the following vocational education program areas have been developed between comprehensive high schools and area vocational schools, and community colleges: Agri-Business, Farm Management, Accounting, Data Processing, Office Systems Technology, Office Technology, Marketing Education, Child Care, Auto Mechanics Technology, Auto Body Technology, Construction Technology, Diesel Technology, Drafting Technology, Electronics Technology, Electronics Equipment Repair, Farm/Industrial Equipment Repair, Firefighter, Graphic Arts

Technology, Manufacturing Technology with Machine Tool CNC Option, MicroComputer Technology, Welding Technology, Surgical Technology, and Paramedic Emergency Medical Technician.

- Several initiatives that are being initiated to establish a common core of applied academic courses which include Applied Biology/ Chemistry, Applied Communication, Applied Mathematics, and Principles of Technology in all member schools of the consortium.

- Reports that indicate that each consortium annually conducts several workshops aimed at administrators, academic and vocational education teachers, and school counselors.

- Workshops which were conducted that addressed the development of Tech Prep Education counseling packets for counselors to use at the eighth grade level. Nine (9) of the consortia have completed the development of these packets and are currently being used in the member schools.

- One (1) consortium that adopted an objective to reduce the number of secondary students pursuing the high school "general track" curriculum. A report from this consortium indicates that 22 of the 26 comprehensive high schools in the consortium have developed curriculum "pathways" for the occupational clusters of business, health and human services, and technical and public service. The implementation of this phase of the project will allow and encourage high school freshman to begin immediately with enrollment in a rigorous pre-technical curriculum.

- Reports that indicate that courses in applied academics are significantly impacting the educational system in Missouri. It was reported that there are 186 sections in the Applied Biology/Chemistry, 320 sections in Applied Communication, 462 sections in Applied Mathematics, and 117 sections in Principles of Technology.

- Activities to develop and distribute career orientation and guidance materials to member schools. These materials are targeted at the grade levels and include classroom activities as indicated in the following table.

Grade	Objective	Activity	Infusion Point
K-5	Career Awareness	Instruction in Social Studies	Social Studies
6	Career Awareness and Exploration	Career Week, Cluster Overview	Exploratory block or Social Studies
7	Personal and Interpersonal Assessment	Career portfolio, Interest inventory, Aptitude testing	Designated time with Guidance staff
8	Individual Academic and Career Plan	Tech Prep Orientation: Tie assessment information to career clusters	Designated time with Guidance staff
9	"From Cluster to Pathway"	Development of a five-year plan	Designated time with Guidance staff
10	"Pathway Explorer"	Investigation of job market options within designated pathway	Career Center
11	Tech Prep Student	Articulated C.C. credits through vocational training, postsecondary option	Career Center Community College Guidance staff
12	Tech Prep Student	Continue articulation, complete portfolio, prepare for postsecondary transition	Career Center Community College Guidance staff
13	Tech Prep Student	Enters community college with advanced placement credits	Community College Guidance staff
14	Tech Prep Student	Finishes AAS Degree, completes occupational internship	Community College Guidance staff Placement office

During Fiscal Year 1994, a statewide gender equity workshop was conducted to better educate counselors regarding gender bias, non-traditional occupations access, and overall awareness of special populations. Specific presentations dealing with "non-traditional" programs, gender equity activities, and preparatory services were scheduled and conducted throughout the State by appropriate staff from the Division of Vocational and Adult Education. Information was provided as to the kinds of services that needed to be provided, who within the local education agencies could assist in providing such services, and who should be contacted if technical assistance was needed. An equity teleconference was also broadcasted from Linn Technical College dealing specifically with Tech Prep Education and gender equity.

Oregon's revised model of career paths is generally being adopted throughout the State. Supplemental materials are being developed in most of the consortia to provide school counselors with information on how to initiate career paths within their schools how the career paths have been linked with the Missouri Guidance Model and Missouri VIEW.

Tech Prep Education consortia coordinators were involved in promoting and utilizing community/business involvement in consortium activities. Some have had greater success than others in developing business/industry partnerships. One (1) consortium coordinator has served on the Springfield Area Chamber of Commerce Business/Education Alliance during the past year. As part of the Alliance's mission to foster education and business involvement, the Alliance conducted a survey of companies in the Springfield metropolitan area to determine what skills (as defined by the SCANS Report) employers found necessary to be successful in their workplace. The results of this survey were presented to over 80 education administrators and business leaders at a breakfast sponsored by the consortium. A related follow-up activity was planned for early August to involve and inform classroom teachers of the survey results. This activity, entitled "Employment Skills Tour," included two (2) work-site visits to discuss employment skill needs with human resource personnel from each company.

A business/industry partnership has been developed between 11 local education agency institutions and Harmon Industries, Inc., Blue Springs, Missouri, who is an international manufacturer of railroad signaling and communications equipment. The idea of developing the partnership came about as a result of Ron Breshears, Harmon's Vice President of Human Resources, attending a conference on Tech Prep Education. Dr. Dale Parnell was the conference presenter. Ron indicates that he got excited when he heard Dr. Parnell's presentation because it sounded as though business and education were finally reading from the same handbook. A meeting was conducted with school officials to explore the feasibility of developing a partnership. As a result of the meeting, a mission statement and four (4) goals were identified. The mission statement that was adopted states: "To improve the competitiveness and quality of Missouri's workforce by developing a model partnership between Harmon Industries, Inc. and public education." The four (4) goals that were adopted are:

- Goal 1: Organize and implement a model partnership in 1994 between Harmon Industries, Inc. and public education.

- Goal 2: Prepare students for a competitive workforce.

- Goal 3: Coordinate and seek funding for joint research and development projects between Harmon Industries, Inc. and appropriate education institutions.

- Goal 4: Identify a system for the delivery of workforce training for Harmon Industries, Inc.

To date, the partnership has had over 100 teachers attend orientation sessions to see what the industry can offer in terms of real-world experiences which could be taken back to the classroom to better motivate students. Student tours have also been arranged. The partnership provides teachers and students an opportunity to shadow a Harmon employee for a day, on the job. Summer internships with Harmon Industries, Inc. are also available. Total Quality Systems (TQS) training is offered to school administrators, faculty, and student leaders. Total quality systems is taught by company officials. Plans are currently underway to implement the Harmon Industries, Inc. Partnership Model throughout the State. Schools participating in the partnership are: The Metropolitan Community Colleges, Kansas City; State Fair Community College, Sedalia; Central Missouri State University, Warrensburg; and the secondary school districts at Knob Noster, Raytown, Grain Valley, Fort Osage, Warrensburg, and Blue Springs. Harmon Industries, Inc. received the Outstanding Business/Industry Contribution to Vocational Education Award sponsored by the National Association of State Directors of Vocational Technical Education Consortium. For more information regarding the Harmon Industries, Inc. business/industry/education partnership model contact: Mr. Ron Breshears, Vice President of Human Resources, Harmon Industries, Inc., 1300 Jefferson Court, Blue Springs, Missouri 64015 (816/229-3345) or Dr. Robert A. Robison, Coordinator of Vocational Education, Elementary and Secondary Education, P. O. Box 480, Jefferson City, Missouri 65102 (314/751-3500).

In Fiscal Year 1994, 641 secondary and postsecondary academic and vocational teachers attended seven (7) inservice workshops which were conducted to assist local education agencies in implementing the Tech Prep Education concept. Fifty-four (54) educators enrolled in the administration and guidance counselor course; 122 enrolled in Applied Biology/Chemistry; 175 in Applied Communication; 227 in Applied Mathematics, and 63 enrolled in Principles of Technology. Workshops were conducted at the following locations offering the identified courses:

	Participants
JEFFERSON CITY (JULY)	103
Administration and Guidance Counselors	16
Applied Biology/Chemistry	21
Applied Communication	27
Applied Mathematics	27
Principles of Technology	12
MARYVILLE (JUNE)	89
Administrators and Guidance Counselors	4
Applied Biology/Chemistry	24
Applied Communication	15
Applied Mathematics	32
Principles of Technology	14

JEFFERSON CITY (JUNE)	124
Administration and Guidance Counselors	12
Applied Biology/Chemistry	27
Applied Communication	22
Applied Mathematics	41
Principles of Technology	22
KANSAS CITY (JUNE)	106
Administration and Guidance Counselors	16
Applied Biology/Chemistry	23
Applied Communication	29
Applied Mathematics	38
LAKE ST. LOUIS (JUNE)	38
Applied Communication	17
Applied Mathematics	21
HANNIBAL (JUNE)	104
Administration and Guidance Counselors	6
Applied Biology/Chemistry	27
Applied Communication	25
Applied Mathematics	31
Principles of Technology	15
POPLAR BLUFF (JUNE)	77
Applied Communication	40
Applied Mathematics	37

The following weaknesses were cited by Tech Prep Education consortium coordinators:

- The prohibitive cost on smaller school districts implementing the applied science components.

- Limited opportunity for extensive vocational education enrollment increases at some area vocational schools because they are at/or near capacity with current enrollment.

- Lack of communication between building-level administrators, classroom teachers, and counselors at the high school level.

- Limited access to high school counselors due to their extensive workload and time constraints.

In Fiscal Year 1994, the Department of Elementary and Secondary Education, Division of Vocational and Adult Education, contracted with the University of Missouri-Columbia to determine the status of Tech Prep Education within the State. The project incorporated appropriate data collected in Fiscal Year 1993 from the Mathematica study. This report, "Status of Tech Prep in Missouri, 1993-94," is contained in Appendix L of this report.

INTEGRATING APPLIED ACADEMICS INTO VOCATIONAL EDUCATION

TITLE I, PART B, SECTION 116; TITLE II, PART A, SECTION 201;
AND TITLE II, PART C, SECTIONS 235 AND 240

ACCOMPLISHMENTS

With the passage of the Carl D. Perkins Vocational and Applied Technical Education Act came the opportunity for schools across the nation to affect real educational reform. The Act required that funds be used to provide vocational education programs that integrate academic and vocational education through a coherent sequence of courses or instruction that enable students to achieve both academic and occupational competencies.

Within Missouri, school districts and institutions developed specific strategies to provide for the integration of academic and vocational education. These strategies included remedial courses or instruction, applied academic courses, applied academic instruction which was incorporated into the vocational education program, and cooperative implementation of integrated instruction by academic and vocational teachers.

The Department maintained membership in five (5) applied academic curricula development consortia to assist schools with the integration of academic and vocational education. The five (5) areas of applied academic curricula provided by these consortia are as follows:

- Applied Biology/Chemistry is designed to present the scientific fundamentals of biology and chemistry that provide a foundation for careers in technology, health, agriculture/agribusiness and home economics. The course employs student activities that relate to work and can be presented as a one-year science course. The materials are suitable for secondary students or for returning adults.

- Applied Communication is designed to help students develop and refine job-related communications skills: reading, writing, listening, speaking, problem-solving, visual, and nonverbal skills. This curriculum can be offered as an alternative to traditional English courses.

- Applied Mathematics is designed to help vocational education students and others develop and refine job-related mathematic skills. The overall course includes material that focuses on arithmetic operations, problem-solving techniques, estimation of answers, measurement skills, geometry, data handling, simple statistics, and algebraic formulas to solve problems. Though the text includes some material found in traditional areas of arithmetic, geometry, algebra, and simple trigonometry; the emphasis remains on the ability to understand and apply functional mathematics to solve problems in the world of work.

- Principles of Technology is a broad, technically-oriented course that provides vocational education students with a foundation for more education and training in advanced-technology career paths. Principles of Technology combines scientific principles in applied physics and mathematics. Videos and hands-on laboratory experiences help provide an approach which ensures career flexibility as machines and technology advance.

- Another applied curriculum that is used to provide instruction for students that facilitates their entry into and successful completion of vocational skill training is Workplace Readiness. This applied curriculum provides skill training as a part of related instruction that is designed to help students transition successfully from school to the workplace.

In Fiscal Year 1994, 25 comprehensive high schools, and 17 area vocational schools were utilizing the Applied Mathematics curriculum in stand-alone courses. Twenty-five (25) comprehensive high schools, and eight (8) area vocational schools were using the Applied Communication curriculum in stand-alone courses. The Applied Biology/Chemistry curriculum was being used in stand-alone courses by 10 comprehensive high schools, and three (3) area vocational schools. Principles of Technology curriculum was being used in stand-alone courses by 16 area vocational schools and one (1) comprehensive high school. The four (4) applied academic curricula have been purchased by twenty-four percent (24%) of the comprehensive high schools, and seventy-three percent (73%) of the area vocational schools, and academic instruction utilizing this curricula is infused within the vocational education programs operated by these institutions. In addition, 19 comprehensive high schools, and 34 area vocational schools have implemented the Workplace Readiness curriculum.

During Fiscal Year 1994, over 775 academic and vocational education administrators, teachers, and counselors attended eight (8) one-week inservice workshops on the utilization of applied academics curricula.

Basic skills instruction that is designed to provide individual or small-group instruction in academic skills essential for successful completion of a vocational training program was also provided by local education agencies throughout the state. This instruction was provided in cooperation with the vocational education teachers.

Integration strategies that involve unified/cooperative planning and implementation between academic and vocational education teachers such as, "writing across the curriculum", team teaching, and curriculum revision (both academic and vocational) to provide instructional activities and materials more applicable/relevant to applied application was also implemented in many local education agencies throughout the State.

Another means by which integration of academics and vocational education was implemented has been through the development and operation of tech prep education activities jointly proposed by at least two (2) eligible recipients, one (1) secondary and one (1) postsecondary. Tech prep education is proving to be a vehicle that eliminates barriers in the learning process for many students and makes academic competence more relevant. For more information on tech prep education refer to section "Tech Prep" in this report.

In Fiscal Year 1994, the Title II Part C distribution to local education agencies and the local expenditures together totaled $1,518,042 for integration activities. Of this total, the local expenditures amounted to $692,532 and the Title II Part C distribution expenditures amounted to $825,510. Among the Title II Part C expenditures by local education agencies, $564,355 was expended on staff salaries; $86,565 on inservice; $62,878 on curriculum modification, development and/or purchase; and $111,712 for instructional equipment and materials.

CAREER GUIDANCE AND COUNSELING

TITLE II, TITLE III, PART C SECTIONS 321-323

ACCOMPLISHMENTS

MODEL GUIDANCE PROGRAM DEVELOPMENT

The purpose of the Missouri Comprehensive Guidance Program has been to help local education agencies (LEAs) develop, implement, and evaluate comprehensive systematic guidance programs at the kindergarten through twelfth grade level. From Fiscal Year 1985 to Fiscal Year 1994, approximately 420 local education agencies have participated in this program. A two-year inservice program has been provided to 2,700 counselors and administrators in these participating LEAs. During the two-year period, counselors conduct a time and task analysis of their current program activities, carry out a student needs and staff/parent assessments, develop guidance curriculum units to address the needs that have been identified by the various populations, establish an advisory committee, conduct a resource assessment, and redirect their activities so that guidance will become a comprehensive program with specific content rather than a set of miscellaneous services. Within the program, specific activities are developed and center around four (4) major components: Guidance Curriculum, Individual Planning, Responsive Services, and System Support. Federal vocational education and local funds provided financial support for the projects which include personnel, materials acquisition/development, and inservice training.

Specific materials have been developed for the Model Guidance Program. These materials include three (3) distinct kits designed for grades kindergarten through 6, 6 through 9, and 9 through 12. Each kit contains a manual which details a step-by-step procedure along with all necessary forms and charts. The high school kit (9-12) contains approximately 300 guidance learning activities which address 90 competencies within 16 broad categories. In addition, the middle/junior high school kit (6-9) includes approximately 250 guidance learning activities that address sixty-two (62) student competencies in twelve (12) broad categories. The elementary school kit (K-6) is in the same format and includes activities that cover forty-four (44) competencies within eleven (11) broad categories. A "Scope and Sequence" process has been developed which details the competencies to be addressed at each level.

The model guidance program includes as a part of the delivery system a yearly planning calendar, a weekly planner designed for the purpose of tracking activities on a daily basis, and a system that identifies the relationship between the students competencies within the Missouri Comprehensive Guidance program and the competencies within the Missouri Core Competencies/Key Skills.

A major focus during the past two (2) years has been the development of instrumentation for the evaluation component of the total system. The instruments have been designed to assess the attainment of student competencies/outcomes as a result of the model guidance process.

Twelve (12) LEAs participated in the initial field testing using students at all grade levels. The field test sample is being expanded to approximately 30 additional sites.

CAREER GUIDANCE/VOCATIONAL EDUCATION RESOURCE CENTERS

To date, the three (3) regional career guidance/vocational education resource centers continue to expand their operations through the development and dissemination of resource materials, carrying out various inservice activities for students and professionals, and providing statewide technical assistance. A strong emphasis continues to be placed on the acquisition and updating of career guidance and vocational education materials and ongoing staff development activities at all levels. The resource centers are located in St. Louis, Kansas City, and Sedalia to serve all the LEAs throughout the State.

MISSOURI VITAL INFORMATION FOR EDUCATION AND WORK (MOVIEW)

The MOVIEW program has continued to be a viable resource to school counselors in Missouri high schools. It was designed to provide up-to-date career information specifically geared toward occupational/career information within the state. The MOVIEW Career Information Delivery System (CIDS) contains information on some 1,350 careers, as well as information on the 57 public area vocational schools and 200 proprietary schools. The system also includes information on the Military Job File, New and Emerging Occupations, Apprenticeship Training, National College File College Major Index, and a Financial Aid data base on scholarships and other sources of student financial assistance. The system is formatted on computer software (Macintosh & IBM), microfiche, and printed material. Annually, the CIDS information is distributed to more than 500 sites throughout the State. The microfiche version has been placed in 175 sites.

A middle school version entitled "Micro Junior" is also offered. A career decision-making strategy and information on 1,350 careers are included.

In addition to the standard CIDS, the program includes Basic VIEW, and Basic Search and Learn. This is a comprehensive system designed for the exceptional student who has reading problems. It is written on a second grade reading level. Basic Search & Learn materials were placed into 70 sites throughout the state.

The "Awareness of the World of Work and Related Education" (AWARE) program is a computerized career awareness program that is available to elementary students in kindergarten through seventh grade. This program utilizes IBM and Apple software and was expanded into 35 sites in Fiscal Year 1994 to total over 800 elementary user sites.

A new multimedia approach was developed in Fiscal Year 1994 in which videotapes were utilized to supplement the software. Volumes I & II (21st Century Missouri Multicultural Role Model Series Videotapes) were distributed to over 200 sites. This program provides successful Missouri role models and allows students to recognize career options, cultural equity, and gender equity. Fifty (50) careers from the skilled, paraprofessional, professional, and managerial careers were selected and provide over ten hours of instruction on videotapes. Recently Volume III, entitled "The Tech Prep Series" has been introduced. Sixty-four (64) careers are available in addition to a parent orientation video and a general information video. Almost seven (7) hours of video presentations are offered on these tapes.

HELPING INDUSTRY RECRUIT EMPLOYEES (HIRE)

Project HIRE is an umbrella organization for 20 area vocational schools, comprehensive high schools, and community colleges. The administration for the project is the responsibility of the Metropolitan Community Colleges at Kansas City. The primary goal is to provide a system by which the schools can work together in developing and sharing available job openings with one another for the placement of vocational education students. This goal is accomplished by the sharing of job openings through a computerized job development/job placement network system. Equipment is located at each school site so that on-line transactions are accomplished. These transactions included in Fiscal Year 1994 the listing of 9,893 jobs and the placement of 992 present or former students.

STATEWIDE JOB PLACEMENT SERVICE

Statewide Job Placement Service was organized as a network of area vocational schools and community colleges cooperating in a statewide effort to provide job placement opportunities for students exiting vocational training programs. Statewide Job Placement Service was designed to supplement the job placement efforts of each participating institution. The emphasis of the service has been to provide inservice training for placement coordinators and instructors at the area vocational schools and community colleges as to their role and responsibilities relating to job placement.

The Service also coordinated statewide marketing strategies, job development techniques, and provided professional resource materials (books, films, brochures, et cetera) for use by the participating institutions. New and improved methods of job placement strategies were developed by the staff and shared with all the schools. Statewide Job Placement Service has coordinated and maintained a student placement data base for each participating institution's exiting graduates.

APPENDIX

APPENDIX A
TABLE I

TOTAL 1993–94 VOCATIONAL EDUCATION ENROLLMENT BY OCCUPATIONAL PROGRAM AREA AND INSTRUCTIONAL LEVEL

SECTION	SECONDARY	ADULT	POST SECONDARY	TOTAL
Agricultural Education	16,862	3,076	653	20,591
Business Education	10,492	25,802	26,783	63,077
Marketing and Cooperative Education	9,258	2,378	7,219	18,855
Health Occupations Education	1,999	7,885	9,108	18,992
Occupational Home Economics Education	749	9,315	3,189	13,253
Consumer and Homemaking Education	62,285	7,779	33	70,097
Industrial Education	14,147	36,955	15,459	66,561
Special Needs (Vo Prep)	1,112	NA	NA	1,112
TOTALS	116,904	93,190	62,444	272,538
Exploratory Agriculture (Grades 7 and 8, not included above)	1,714	NA	NA	1,714
Additional Students Receiving Special Needs Services	4,788	2,579	0	7,367
Additional Individuals Receiving Single Parent/Displaced Homemaking Services Only	28	2,554	1,573	4,155
Additional Individuals Receiving Gender Bias Services Only	3,875	1,666	351	5,892

APPENDIX A
TABLE II

1993–94 AGRICULTURAL EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
01.0000	1,714	NA	NA	1,714
01.0101	951	893	115	1,959
01.0201	3,938	217	15	4,170
01.0301	1,124	1,665	25	2,814
01.0401	53	NA	NA	53
01.0501	554	18	209	781
01.0601	2,066	127	289	2,482
01.9999	514	134	NA	648
02.0101	6,600	22	NA	6,622
03.0101	849	NA	NA	849
03.0401	213	NA	NA	213
TOTALS	18,576	3,076	653	22,305

APPENDIX A
TABLE III

1993–94 BUSINESS EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
52.0201	15	1,066	1,341	2,422
52.0204	NA	156	327	483
52.0205	NA	5,018	NA	5,018
52.0302	1,673	587	5,432	7,692
52.0401	NA	139	3,290	3,429
52.0403	NA	49	902	951
52.0404	NA	357	518	875
52.0407	1,892	288	33	2,213
52.0408	5,795	3,042	2,432	11,269
52.0803	NA	86	NA	86
52.0805	NA	177	NA	177
52.1001	NA	387	15	402
52.1202	477	99	7,561	8,137
52.1203	NA	48	53	101
52.1205	528	6,675	1,564	8,767
52.1299	15	6,652	3,134	9,801
52.9999	97	976	181	1,254
TOTALS	10,492	25,802	26,783	63,077

APPENDIX A
TABLE IV

1993–94 MARKETING AND COOPERATIVE EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
08.0101	787	NA	325	1,112
08.0102	46	NA	289	335
08.0204	47	NA	NA	47
08.0205	46	NA	NA	46
08.0301	324	NA	433	757
08.0401	46	NA	NA	46
08.0601	741	NA	NA	741
08.0705	1,852	NA	1,624	3,476
08.0706	185	NA	NA	185
08.0708	1,759	2,378	1,336	5,473
08.0809	46	NA	NA	46
08.0810	47	NA	NA	47
08.0901	139	NA	1,083	1,222
08.0902	93	NA	361	454
08.0906	1,620	NA	NA	1,620
08.1001	NA	NA	36	36
08.1105	93	NA	325	418
08.1203	185	NA	NA	185
08.1209	139	NA	NA	139
08.1301	46	NA	NA	46
08.9999	93	NA	36	129
09.0201	46	NA	144	190
52.0201	231	NA	NA	231
52.0701	185	NA	289	474
52.0901	93	NA	505	598
52.0902	139	NA	NA	139
52.1101	46	NA	NA	46
52.1401	138	NA	433	571
52.1402	46	NA	NA	46
TOTALS	9,258	2,378	7,219	18,855

APPENDIX A
TABLE V

1993–94 HEALTH OCCUPATIONS EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
12.0301	NA	NA	49	49
51.0601	25	30	144	199
51.0602	NA	NA	114	114
51.0603	NA	NA	NA	NA
51.0699	NA	NA	NA	NA
51.0703	NA	18	NA	18
51.0707	NA	NA	442	442
51.0801	NA	5	NA	5
51.0803	NA	NA	228	228
51.0805	NA	NA	NA	NA
51.0806	NA	NA	288	288
51.0899	NA	NA	NA	NA
51.0904	NA	717	1,155	1,872
51.0907	NA	39	297	336
51.0908	NA	64	145	209
51.0909	NA	27	87	114
51.0910	NA	NA	34	34
51.1004	NA	NA	208	208
51.1501	NA	NA	NA	NA
51.1502	NA	NA	784	784
51.1599	NA	NA	NA	NA
51.1601	NA	18	3,018	3,036
51.1613	NA	915	742	1,657
51.1614	NA	1,042	486	1,528
51.1615	NA	NA	NA	NA
51.1699	NA	1,008	154	1,162
51.2601	1,974	NA	23	1,997
51.9999	NA	4,002	710	4,712
TOTALS	1,999	7,885	9,108	18,992

APPENDIX A
TABLE VI

1993–94 OCCUPATIONAL HOME ECONOMICS EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
04.0501	NA	NA	94	94
20.0202	491	1,603	969	3,063
20.0203	NA	6,973	1,124	8,097
20.0204	NA	NA	NA	NA
20.0303	48	NA	57	105
20.0304	NA	NA	NA	NA
20.0306	69	NA	19	88
20.0309	NA	NA	NA	NA
20.0401	7	21	3	31
20.0404	NA	36	452	488
20.0406	NA	NA	NA	NA
20.0408	NA	NA	NA	NA
20.0501	NA	156	NA	156
20.0504	NA	16	NA	16
20.0601	NA	4	NA	4
20.0604	28	506	NA	534
20.9999	106	NA	471	577
TOTALS	749	9,315	3,189	13,253

APPENDIX A
TABLE VII

1993–94 CONSUMER AND HOMEMAKING EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
20.0101	8,844	NA	33	8,877
20.0102	13,454	10	NA	13,464
20.0103	2,991	90	NA	3,081
20.0104	2,927	1,313	NA	4,240
20.0106	6,104	48	NA	6,152
20.0107	6,976	5,065	NA	12,041
20.0108	12,768	1,114	NA	13,882
20.0109	62	NA	NA	62
20.0110	3,426	129	NA	3,555
20.0199	4,733	10	NA	4,743
TOTALS	62,285	7,779	33	70,097

APPENDIX A

TABLE VIII

1993–94 INDUSTRIAL EDUCATION ENROLLMENT BY CIP AND LEVEL

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
06.2001	NA	12	NA	12
06.2003	NA	4,209	NA	4,209
10.0100	NA	94	NA	94
10.0101	NA	NA	NA	NA
10.0104	9	16	75	100
12.0101	NA	NA	NA	NA
12.0403	132	41	NA	173
12.0499	NA	NA	NA	NA
12.0503	727	291	161	1,179
15.0101	NA	NA	96	96
15.0201	NA	9	60	69
15.0303	NA	NA	2,118	2,118
15.0304	NA	NA	22	22
15.0401	NA	NA	11	11
15.0402	NA	NA	15	15
15.0403	NA	NA	35	35
15.0404	NA	NA	NA	NA
15.0405	NA	NA	22	22
15.0501	NA	NA	337	337
15.0506	NA	NA	49	49
15.0603	NA	NA	269	269
15.0607	NA	NA	NA	NA
15.0611	NA	NA	NA	NA
15.0699	NA	11,214	NA	11,214
15.0701	NA	64	53	117
15.0702	NA	5,952	946	6,898
15.0803	NA	NA	663	663
15.0805	NA	NA	127	127
15.1001	NA	NA	266	266
15.1102	NA	NA	NA	NA
15.1103	NA	36	NA	36
23.1101	NA	NA	NA	NA
27.0301	NA	24	NA	24
41.0301	9	NA	NA	9
42.0901	NA	NA	NA	NA

APPENDIX A
TABLE VIII (CONTINUED)

1993–94 Industrial Education Enrollment (Continued)

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
43.0107	17	NA	4,869	4,886
43.0201	54	NA	325	379
43.0203	NA	27	118	145
46.0101	64	77	NA	141
46.0201	1,962	1,207	68	3,237
46.0301	76	216	3	295
46.0302	137	1,067	140	1,344
46.0401	182	34	NA	216
46.0408	NA	61	NA	61
46.0499	NA	56	NA	56
46.0501	29	1,295	NA	1,324
46.9999	1,464	2,509	NA	3,973
47.0101	857	1,112	NA	1,969
47.0102	NA	NA	NA	NA
47.0103	49	NA	29	78
47.0104	NA	37	48	85
47.0105	188	NA	NA	188
47.0106	NA	NA	NA	NA
47.0201	383	2,034	369	2,786
47.0302	NA	19	NA	19
47.0303	NA	NA	NA	NA
47.0304	NA	NA	NA	NA
47.0399	17	11	NA	28
47.0501	NA	38	24	62
47.0603	1,467	580	17	2,064
47.0604	2,226	514	81	2,821
47.0605	153	20	24	197
47.0606	253	338	NA	591
47.0607	52	32	5	89
47.0608	3	24	2	29
47.0609	NA	NA	108	108
47.0611	NA	NA	NA	NA
47.0699	36	NA	NA	36
48.0101	916	397	1,508	2,821
48.0103	NA	NA	NA	NA
48.0199	NA	70	21	91

APPENDIX A
TABLE VIII (CONTINUED)

1993–94 Industrial Education Enrollment (Continued)

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
48.0201	905	35	44	984
48.0212	NA	NA	NA	NA
48.0299	NA	25	NA	25
48.0303	NA	NA	NA	NA
48.0399	NA	NA	NA	NA
48.0501	453	514	520	1,487
48.0503	NA	NA	NA	NA
48.0506	NA	802	64	866
48.0507	NA	120	18	138
48.0508	948	982	91	2,021
48.0599	52	NA	NA	52
48.0703	70	41	NA	111
49.0101	NA	NA	NA	NA
49.0104	NA	NA	110	110
49.0106	NA	NA	NA	NA
49.0202	NA	543	NA	543
49.0205	NA	89	158	247
49.0306	65	55	NA	120
50.0201	21	NA	NA	21
50.0402	171	12	999	1,182
50.0404	NA	NA	134	134
50.0406	NA	NA	237	237
TOTALS	14,147	36,955	15,459	66,561

APPENDIX A
TABLE IX

1993–94 STUDENTS RECEIVING SPECIAL NEEDS SERVICES

CIP CODE	SECONDARY	ADULT	POST SECONDARY	TOTAL
99.0100	1,112	NA	NA	1,112
99.0103	NA	179	NA	179
99.0106	NA	NA	NA	NA
99.0301	NA	NA	NA	NA
99.0302	3,489	NA	NA	3,489
99.0303	1,299	315	NA	1,614
99.0400	NA	2,085	NA	2,085
TOTALS	5,900	2,579	NA	8,479

APPENDIX A
TABLE X

1993–94 INDIVIDUALS RECEIVING SINGLE PARENT/ DISPLACED HOMEMAKER AND GENDER BIAS SERVICES

	SECONDARY	ADULT	POST SECONDARY	TOTAL
Single Parent (Enrolled)	126	937	2,449	3,512
Single Parent (Services Only)	28	2,554	1,573	4,155
Gender Bias (Enrolled)	446	248	419	1,113
Gender Bias (Services Only)	3,875	1,666	351	5,892
TOTALS	4,475	4,792	5,405	14,672

APPENDIX B
TABLE I

VOCATIONAL EDUCATION FOLLOW-UP
SUMMARY OF FOLLOW-UP BY TYPE AND CIP CODE
1993 SECONDARY EXITERS

CIP CODE	(COURSE)	EXITERS	EMPLOYED RELATED	EMPLOYED NOT RELATED	CONTINUING EDUCATION RELATED	CONTINUING EDUCATION NOT RELATED	NOT EMPLOYED	NOT AVAILABLE	STATUS UNKNOWN	MILITARY RELATED	MILITARY NOT RELATED
00.0000	COE	869	395	88	176	89	29	15	40	13	24
01.0101	AG MGMT	395	116	43	139	71	5	2	4	11	4
01.0201	AG MECH	1,534	598	212	349	196	36	20	50	33	40
01.0301	AG PROD	307	95	38	95	50	7	10	6	4	2
01.0501	AG SUPP	263	75	33	74	40	3	12	6	4	16
01.0601	HORTICU	861	164	230	128	191	47	27	37	10	27
01.9999	AG OTHE	121	38	18	29	26	5	2	1	0	2
02.0101	AG SCIE	352	99	65	63	61	23	4	17	5	15
03.0101	AG RESO	303	71	65	55	55	9	8	26	5	9
03.0401	FORESTR	106	21	31	18	20	5	2	2	1	6
08.0000	MKTING	4,806	1,789	484	1,157	637	177	112	279	92	79
12.0403	COSMETO	63	27	11	4	9	8	3	1	0	0
12.0503	CUL ART	407	163	65	26	47	45	25	31	2	3
20.0202	CC PROV	336	66	60	92	41	43	12	20	0	2
20.0303	CGA WKR	28	0	15	1	8	1	1	1	0	1
20.0306	FSFAB C	12	1	2	4	2	0	1	2	0	0
20.0401	INFOGEN	5	1	0	1	1	0	0	1	0	1
20.0604	CUSTCAR	9	7	0	0	0	2	0	0	0	0
43.0107	LAW ENF	11	3	2	2	2	0	1	0	1	0
43.0201	FIRE TC	19	0	1	5	3	3	1	3	3	0
46.0000	T AND I	950	403	112	147	106	38	29	64	23	28
46.0101	MASONRY	44	10	20	4	3	2	3	0	0	2
46.0201	CARPENT	994	339	295	97	74	57	17	39	20	56
46.0301	ELC T G	48	13	16	7	4	2	2	0	2	2
46.0302	ELECTRN	58	12	14	19	1	7	0	0	5	0
46.0401	BLDG MA	98	30	20	8	11	12	2	11	3	1
46.0501	PLUMBER	9	3	3	1	0	1	1	0	0	0
46.9999	CON T O	78	14	21	4	10	22	1	0	3	3
47.0101	EL EN G	428	58	121	141	24	20	13	7	30	14
47.0103	C S INS	6	3	3	0	0	0	0	0	0	0
47.0105	IND ELC	135	18	39	44	13	4	4	1	10	2
47.0201	H AC RE	240	62	92	42	12	14	4	4	5	5
47.0399	IN E MA	9	5	1	1	1	0	0	0	1	0
47.0603	A BOD R	735	210	290	66	45	48	14	23	11	28
47.0604	AU MECH	1,214	297	438	177	87	82	23	32	44	34
47.0605	DIESL M	101	28	32	7	12	9	2	2	7	2
47.0606	SM EN R	153	33	60	8	15	21	7	3	3	3
47.0607	A M T A	1	0	0	0	1	0	0	0	0	0
47.0608	A M T P	7	1	1	3	1	0	0	0	1	0
47.0699	VEHMEOT	9	3	2	0	2	1	0	1	0	0
48.0101	DRAFT G	330	47	84	122	24	14	7	8	10	14
48.0201	GR PR G	444	68	153	54	64	48	24	25	0	8
48.0501	MACH TC	237	76	62	46	13	17	3	10	6	4
48.0508	WELDING	491	182	153	44	28	32	12	13	15	12
48.0599	MET FAB	14	4	2	0	4	1	0	3	0	0

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APPENDIX B
TABLE I (CONTINUED)

VOCATIONAL EDUCATION FOLLOW-UP
SUMMARY OF FOLLOW-UP BY TYPE AND CIP CODE
1993 SECONDARY EXITERS

CIP CODE	(COURSE)	EXITERS	EMPLOYED RELATED	EMPLOYED NOT RELATED	CONTINUING EDUCATION RELATED	CONTINUING EDUCATION NOT RELATED	NOT EMPLOYED	NOT AVAILABLE	STATUS UNKNOWN	MILITARY RELATED	MILITARY NOT RELATED
48.0703	CAB MIL	51	18	20	4	2	5	0	2	0	0
49.0306	MARI MA	28	16	6	2	1	0	3	0	0	0
50.0201	CRAFTS	13	1	5	2	2	2	0	0	0	1
50.0402	COM ART	110	19	37	24	10	13	3	3	0	1
51.2601	HLTH AI	1,286	335	242	427	92	96	59	18	13	4
52.0302	ACCOUNT	749	104	115	254	201	22	8	24	4	17
52.0407	DATA EN	2	0	1	1	0	0	0	0	0	0
52.0408	GEN OFF	3,463	875	536	1,003	553	208	92	141	23	32
52.1202	PROGRAM	214	42	46	61	17	26	3	7	7	5
52.1205	COMPUTE	211	36	49	52	25	24	5	10	3	7
52.1299	BUINFOT	447	52	84	145	117	17	5	6	10	11
52.9999	BUS OTH	13	6	0	4	0	0	0	3	0	0
GRAND TOTALS		24,227	7,152	4,638	5,439	3,124	1,313	604	987	443	527

APPENDIX B
TABLE II

VOCATIONAL EDUCATION FOLLOW-UP
SUMMARY OF FOLLOW-UP BY TYPE AND CIP CODE
1993 POSTSECONDARY EXITERS

CIP CODE	(COURSE)	EXITERS	EMPLOYED RELATED	EMPLOYED NOT RELATED	CONTINUING EDUCATION RELATED	CONTINUING EDUCATION NOT RELATED	NOT EMPLOYED	NOT AVAILABLE	STATUS UNKNOWN	MILITARY RELATED	MILITARY NOT RELATED
01.0101	AG MGMT	24	14	7	1	0	1	0	1	0	0
01.0301	AG PROD	3	2	1	0	0	0	0	0	0	0
01.0501	AG SUPP	36	30	2	2	0	1	0	1	0	0
01.0601	HORTICU	45	20	12	3	2	2	2	4	0	0
04.0501	INT ARC	18	13	1	0	0	3	0	1	0	0
08.0000	MKTING	300	180	47	21	4	9	4	34	0	1
10.0104	RTV TC	7	2	3	1	0	1	0	0	0	0
12.0301	FU SERV	22	15	3	0	0	2	0	2	0	0
15.0101	ARCH TC	5	4	0	0	0	0	0	0	0	1
15.0201	CVLENTC	7	3	1	1	1	1	0	0	0	0
15.0303	ELEC TC	141	56	23	35	2	6	2	17	0	0
15.0304	LASTECH	5	5	0	0	0	0	0	0	0	0
15.0401	BI EN T	8	2	0	1	0	2	0	3	0	0
15.0402	COMA TC	2	2	0	0	0	0	0	0	0	0
15.0403	ELMECTC	3	0	0	0	0	0	0	3	0	0
15.0405	ROBTECH	5	2	0	0	1	1	1	1	0	0
15.0501	H AR TC	31	17	6	5	1	1	1	0	0	0
15.0506	WST W T	39	17	6	15	2	0	0	0	0	0
15.0603	INMANTC	13	4	1	1	0	1	0	4	0	0
15.0701	OCSA TC	1	1	0	0	0	0	0	0	0	0
15.0702	QU C TC	8	5	0	1	0	0	0	2	0	0
15.0803	AUTO TC	73	51	3	4	0	1	0	13	1	0
15.0805	MC E TC	1	1	0	0	0	0	0	0	0	0
15.1001	CONTECH	22	14	2	1	0	2	0	3	0	0
20.0202	CC PROV	31	20	1	0	0	0	0	10	0	0
20.0203	CC MANG	83	53	8	7	0	2	6	7	0	0
20.0303	CGA WKR	3	1	0	0	0	0	0	2	0	0
20.0306	FSPAB C	8	2	4	2	0	0	0	0	0	0
20.0401	INFOGEN	29	12	6	3	0	0	1	7	0	0
20.0404	DIET AS	7	4	1	0	0	1	1	0	0	0
20.9999	VOHE OT	62	19	15	20	6	2	2	4	0	0
43.0107	LAW ENF	469	217	42	108	0	6	6	81	1	2
43.0201	FIRE TC	19	13	0	5	0	0	0	1	0	0
43.0203	FIRESCI	4	2	2	0	0	0	0	0	0	0
47.0103	C S INS	5	5	0	0	1	0	0	0	0	0
47.0201	H AC RE	20	6	0	0	0	2	0	11	0	0
47.0605	DIESL M	2	2	0	0	2	0	0	0	0	0
47.0607	A M T A	35	6	8	6	1	6	0	4	3	0
47.0608	A M T P	29	11	8	1	2	0	1	7	0	0
47.0609	AVIATO	14	6	1	2	2	1	0	2	0	0
48.0101	DRAFT G	99	46	11	14	0	3	1	22	0	0
48.0199	DRAFT O	6	1	1	2	0	1	0	1	0	0

APPENDIX B
TABLE II (CONTINUED)

VOCATIONAL EDUCATION FOLLOW-UP
SUMMARY OF FOLLOW-UP BY TYPE AND CIP CODE
1993 POSTSECONDARY EXITERS

CIP CODE	(COURSE)	EXITERS	EMPLOYED RELATED	EMPLOYED NOT RELATED	CONTINUING EDUCATION RELATED	CONTINUING EDUCATION NOT RELATED	NOT EMPLOYED	NOT AVAILABLE	STATUS UNKNOWN	MILITARY RELATED	MILITARY NOT RELATED
48.0501	MACH TC	40	32	2	6	0	0	0	0	0	0
48.0508	WELDING	5	2	0	2	0	1	0	0	0	0
49.0104	AVIA MG	2	0	1	1	0	0	0	0	0	0
49.0205	VEH OPR	287	287	0	0	0	0	0	0	0	0
50.0402	COM ART	89	33	18	16	3	5	2	11	0	1
50.0406	COM PHO	10	3	1	2	0	1	0	3	0	0
51.0601	DENT AS	59	33	4	0	1	1	1	19	0	0
51.0602	DENT HY	47	28	0	4	0	0	0	15	0	0
51.0603	DLAB TC	11	6	1	0	0	0	0	4	0	0
51.0703	HLUNCOR	28	18	1	0	1	1	4	3	0	0
51.0707	MR TECH	27	18	0	0	0	2	0	7	0	0
51.0801	MED AS	15	10	2	2	0	0	1	0	0	0
51.0803	DCTH AS	35	28	0	1	0	0	0	6	0	0
51.0806	PHTH AS	45	40	0	0	0	0	1	4	0	0
51.0904	EM TECH	74	40	15	7	3	4	0	5	0	0
51.0907	MRAD TC	42	16	0	3	1	1	0	21	0	0
51.0908	RSTH TC	49	44	1	0	0	1	0	3	0	0
51.0909	SURG TC	37	25	1	1	2	0	0	8	0	0
51.0910	DGMEDSO	16	14	0	1	0	0	0	1	0	0
51.1004	MLAB TC	49	30	2	3	3	1	0	10	0	0
51.1502	MH TECH	7	3	1	0	0	0	0	3	0	0
51.1601	REG NUR	839	677	5	6	0	6	9	135	0	1
51.1613	PRC NUR	260	182	0	53	0	0	3	22	0	0
51.1614	NURSE AS	97	73	9	3	0	3	4	5	0	0
51.1699	NURSE OT	11	8	2	1	0	0	0	0	0	0
52.0201	BUS MAN	69	31	13	3	1	2	2	17	0	0
52.0204	OFF SUP	13	6	3	0	0	0	0	4	0	0
52.0302	ACCOUNT	80	41	13	5	1	7	3	10	0	0
52.0401	SECRETA	181	98	24	17	0	15	4	23	0	0
52.0403	LEG SEC	209	101	44	26	0	10	5	23	0	0
52.0404	MED SEC	68	44	6	1	2	5	0	10	0	0
52.0408	GEN OFF	89	50	11	12	1	4	6	5	0	0
52.0803	BANKING	3	2	0	0	1	0	0	0	0	0
52.1202	PROGRAM	142	53	25	9	3	6	5	41	0	0
52.1203	SYS ANA	23	15	3	2	0	0	0	3	0	0
52.1205	COMPUTE	34	14	9	3	1	3	0	4	0	0
52.1299	BUINFOT	27	12	5	4	0	2	0	4	0	0
52.9999	BUS OTH	4	3	0	1	0	0	0	0	0	0
GRAND TOTALS		4,867	3,006	448	457	51	139	78	677	5	6

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APPENDIX B
TABLE III

VOCATIONAL EDUCATION FOLLOW-UP
SUMMARY OF FOLLOW-UP BY TYPE AND CIP CODE
1993 ADULT EXITERS

CIP CODE	(COURSE)	EXITERS	EMPLOYED RELATED	EMPLOYED NOT RELATED	CONTINUING EDUCATION RELATED	CONTINUING EDUCATION NOT RELATED	NOT EMPLOYED	NOT AVAILABLE	STATUS UNKNOWN	MILITARY RELATED	MILITARY NOT RELATED
01.0201	AG MECH	27	16	2	9	0	0	0	0	0	0
01.0501	AG SUPP	10	4	2	1	0	1	2	0	0	0
12.0403	COSMETO	37	25	4	2	0	6	0	0	0	0
15.0201	CVLENTC	2	2	0	0	0	0	0	0	0	0
46.0301	ELC T G	13	12	1	0	0	0	0	0	0	0
47.0101	EL EN G	99	46	22	21	2	4	4	0	0	0
47.0201	H AC RE	87	40	19	23	0	0	4	1	0	0
47.0302	HE MAIN	15	12	0	0	0	3	0	0	0	0
47.0603	A BOD R	29	24	2	1	1	0	1	0	0	0
47.0604	AU MECH	79	51	7	10	1	6	2	0	1	1
47.0605	DIESL M	12	7	2	1	0	2	0	0	0	0
47.0607	A M T A	15	15	0	0	0	0	0	0	0	0
47.0608	A M T P	16	0	8	0	0	3	5	0	0	0
47.0609	AVIATIO	4	1	1	2	0	0	0	0	0	0
48.0101	DRAFT G	32	24	4	2	1	1	0	0	0	0
48.0501	MACH TC	44	23	10	3	0	5	1	2	0	0
48.0508	WELDING	23	3	6	12	0	0	1	1	0	0
48.0703	CAB MIL	16	2	2	10	0	0	2	0	0	0
49.0202	CO EQ O	34	25	5	0	0	4	0	0	0	0
49.0205	VEH OPR	42	34	5	0	0	1	1	1	0	0
51.0601	DENT AS	14	13	0	0	0	0	1	0	0	0
51.0904	EM TECH	41	30	3	3	2	1	1	1	0	0
51.0907	MRAD TC	24	7	2	11	0	2	2	0	0	0
51.0908	RSTH TC	57	47	4	0	0	5	0	1	0	0
51.0909	SURG TC	30	16	5	2	0	2	0	5	0	0
51.1601	REG NUR	24	24	0	0	0	0	0	0	0	0
51.1613	PRC NUR	806	659	31	46	2	23	16	26	1	2
52.0302	ACCOUNT	16	14	1	0	0	1	0	0	0	0
52.0403	LEG SEC	5	2	1	0	0	0	2	0	0	0
52.0404	MED SEC	17	10	2	2	0	1	2	0	0	0
52.0408	GEN OFF	323	152	63	32	7	41	17	10	1	0
52.1202	PROGRAM	18	12	6	0	0	0	0	0	0	0
GRAND TOTALS		2,011	1,352	220	193	16	112	64	48	3	3

APPENDIX B
TABLE IV

VOCATIONAL EDUCATION FOLLOW-UP
SUMMARY OF FOLLOW-UP BY TYPE AND CIP CODE
1993 SECONDARY, POST SECONDARY, AND ADULT EXITERS
STATEWIDE TOTALS

CIP CODE (COURSE)	EXITERS	EMPLOYED RELATED	EMPLOYED NOT RELATED	CONTINUING EDUCATION RELATED	CONTINUING EDUCATION NOT RELATED	NOT EMPLOYED	NOT AVAILABLE	STATUS UNKNOWN	MILITARY RELATED	MILITARY NOT RELATED
STATE TOTAL	31,105	11,510	5,306	6,089	3,191	1,564	746	1,712	451	536

APPENDIX C

MISSOURI
PERFORMANCE STANDARDS AND MEASURES FOR VOCATIONAL EDUCATION

PERFORMANCE STANDARDS AND MEASURES FOR PREPARATORY VOCATIONAL EDUCATION PROGRAMS

MEASURE: **ACADEMIC ATTAINMENT**
(Mastery rate of basic and advanced academic skills in mathematics, English/communications, science and social studies/science for students enrolled in Department approved preparatory vocational education programs/courses.)

STANDARD: I.1 **All vocational education students enrolled in preparatory vocational education programs/ courses will demonstrate attainment of basic and advanced academic skills in mathematics, English/communications, science, and social studies/science.**

A. **Secondary students will demonstrate mastery of _____ percent (%) of the key skills on the 10th grade Missouri Mastery and Achievement Test at the 12th grade.**

B. **Postsecondary students will demonstrate mastery of _____ percent (%) of the skills on an institutionally identified and Department approved academic assessment at the completion of a vocational education program of study.**

ADJUSTMENTS:

- Secondary students with disabilities whose academic education experiences are modified by an individualized education plan (IEP) should not be included in the attainment calculation. Academic skill attainment for students with disabilities whose IEP committee has exempted them from taking the MMAT will be assessed by the attainment of identified IEP goals and objectives consistent with evaluation procedures identified in each student's IEP.
- The scores of secondary students who have transferred into the district from out of state or who have not taken the MMAT at grade 10 should not be included in the attainment calculation.
- Postsecondary students who transfer from another postsecondary institution or who have not taken the identified academic assessment upon entry should not be included in the attainment calculation.

NOTE: The determination of the mastery percentage of mean score of mastered academic skills used in this standard will not be determined until data regarding projected and actual scores are gathered and analyzed with the assistance of the Center for Educational Assessment at the University of Missouri-Columbia.

MEASURE: ACADEMIC GAIN
(Rate of gain in basic and advanced academic skills in mathematics, English/communications, science, and social studies/science for students enrolled in Department approved preparatory vocational education programs/courses.)

STANDARD: I.2 **All vocational education students enrolled in preparatory vocational education programs/ courses will demonstrate gain in basic and advanced academic skills in mathematics, English/communications, science, and social studies/science.**

A. **Secondary students will demonstrate at least a _____ point scaled score gain between the 10th grade and the 12th grade on the 10th grade Missouri Mastery and Achievement Test.**

B. **Postsecondary students will demonstrate at least a _____ percent (%) gain between entry into and completion of a vocational education program of study on an institutionally identified and Department approved academic assessment instrument.**

ADJUSTMENTS:

- ♦ Secondary students with disabilities whose academic educational experiences are modified by an individualized education plan (IEP) should not be included in the gain calculation. Academic skill gain for students with disabilities whose IEP committee has exempted them for taking the MMAT will be assessed by the change in attainment of identified IEP goals and objectives consistent with evaluation procedures identified in each student's IEP.
- ♦ The scores of secondary students who have transferred into the district from out of state or who have not taken the MMAT at grade 10 should not be included in the gain calculation.
- ♦ Postsecondary students who transferred from another postsecondary institution or who have not taken the identified academic assessment upon entry should not be included in the gain calculation.

NOTE: The determination of the percent of gain used in this standard will not be determined until data regarding the projected and actual scores are gathered and analyzed with the assistance of the Center for Educational Assessment at the University of Missouri-Columbia.

MEASURE: OCCUPATIONAL COMPETENCE
(Mastery rate of occupational and employability skills for students enrolled in a Department approved preparatory vocational education program/course.)

STANDARD: I.3 **All vocational education students enrolled in preparatory vocational education programs/ courses will demonstrate mastery of eighty percent (80%) of the essential occupational and employability skills necessary for entry-level employment as identified by the district/institution and approved by the Department.**

ADJUSTMENTS:

- Students with disabilities whose occupational education experiences are modified by an individualized educational plan (IEP) should not be included in the attainment calculation. Occupational skill attainment for students with disabilities whose IEP committee has modified their vocational education course of study will be assessed by the attainment of identified IEP goals and objectives consistent with evaluation procedures and criteria identified in each student's IEP.

MEASURE: STUDENT ACCESS
(Participation rate of individuals who are members of special populations groups (students who are economically or educationally disadvantaged, have limited English proficiency, or have disabilities) in Department approved preparatory vocational education programs/courses.)

STANDARD: I.4 **The proportion of participation of individuals who are members of special populations groups in preparatory vocational education programs/ courses is equal to or greater than the proportion of their membership in the relevant district/institution population.**

ADJUSTMENTS:

- Districts/institutions which do not attain this proportion must maintain a five percent (5%) annual gain in the proportion of special populations participation in vocational education programs/courses.

MEASURE: PLACEMENT
(Placement rate of vocational education students who have enrolled in Department approved preparatory vocational education programs/courses into employment, further training/education, or military service.)

STANDARD: I.5 **The rate of placement of students who have enrolled in preparatory vocational education programs/courses into employment, further training/education or military service will be eighty-five percent (85%).**

ADJUSTMENTS:

This rate may be calculated by district/institution, or by individual vocational education program/course; and annually or an average of the past three years.

PERFORMANCE STANDARDS AND MEASURES FOR SUPPLEMENTAL VOCATIONAL EDUCATION PROGRAMS

MEASURE: **OCCUPATIONAL COMPETENCE**
(Mastery rate of occupational skills for students enrolled in a Department approved supplemental vocational education program/course.)

STANDARD: II.1 **All vocational education students enrolled in a supplemental vocational education program/ course will demonstrate mastery of eighty percent (80%) of the occupational skills identified by the district/institution.**

ADJUSTMENTS:

None.

PERFORMANCE STANDARDS AND MEASURES CORRECTIONS PROGRAMS

MEASURE: **PLACEMENT**
(Placement rate of criminal offenders participating in Department approved vocational programs and/or services provided by corrections programs of the Department of Corrections and the Division of Youth Services.)

STANDARD: III.1 **The rate of placement of criminal offenders participating in corrections programs into employment or training for employment will be seventy percent (70%) within one hundred eighty (180) days after their release from incarceration.**

ADJUSTMENT:

None.

PERFORMANCE STANDARDS AND MEASURES
FOR PROGRAMS FOR SINGLE PARENTS, DISPLACED HOMEMAKERS, SINGLE PREGNANT WOMEN, AND GIRLS/WOMEN AGES 14-25; AND PROGRAMS DESIGNED TO ELIMINATE SEX BIAS AND STEREOTYPING IN VOCATIONAL EDUCATION

MEASURE: **PARTICIPATION**
(Increase in client participation in Department approved and funded single parent and equity programs.)

STANDARD: **IV.1 A two percent (2%) annual increase in the number of participants being served will be achieved by programs for single parents, displaced homemakers, single pregnant women, and girls/women ages 14-25; and programs designed to eliminate sex bias and stereotyping in vocational education.**

ADJUSTMENTS:

None.

PERFORMANCE STANDARDS AND MEASURES
FOR COMMUNITY-BASED ORGANIZATION PROGRAMS

MEASURE: **PLACEMENT**
(Placement rate into employment or training for employment of clients participating in programs and/or services provided through Department approved joint projects of community-based organizations and local education agencies.)

STANDARD: V.1 **The rate of placement of clients into employment or training for employment will be seventy percent (70%) within ninety (90) days after conclusion of their participation in community-based organization programs/ services.**

ADJUSTMENTS:

None.

PERFORMANCE STANDARDS AND MEASURES FOR CONSUMER AND HOMEMAKING PROGRAMS

MEASURE: **STUDENT ACCESS**
(Participation rate of students enrolled in Department approved consumer and homemaking courses.)

STANDARD: VI.1 **The percentage of participation of secondary students enrolled in at least one Department approved consumer and homemaking course shall increase one percent (1%) annually at the local education agency (district) level.**

ADJUSTMENTS:

Local education agencies with a participation rate of ninety-five percent (95%) or greater will not be required to meet the annual increase.

MEASURE: **NONTRADITIONAL STUDENT ACCESS**
(Participation rate of secondary male students enrolled in Department approved consumer and homemaking courses.)

STANDARD: VI.2 **The proportion of participation of male secondary students in at least one Department approved consumer and homemaking course will be equal to or greater than forty percent (40%) of the local education agency's (district's) secondary population (grades 9-12).**

ADJUSTMENTS:

None.

PERFORMANCE STANDARDS AND MEASURES FOR TECH-PREP EDUCATION

MEASURE: **RETENTION**
(Retention rate of students participating in a Department approved tech-prep education program.)

STANDARD: VII.1 **The annual retention rate of students continuing to participate in a tech-prep education program (two years at the secondary level plus two years at the postsecondary level) will be eighty percent (80%).**

ADJUSTMENTS:

The retention rate calculation may include those students who are placed into related employment or continued education after the second or third year of the 2 + 2 tech-prep education program.

PERFORMANCE STANDARDS AND MEASURES FOR VOCATIONAL EDUCATION VOCATIONAL EDUCATION PREPARATORY PROGRAMS BENEFITTING FROM II-C FUNDING

GENERAL RULE

The following vocational education preparatory programs are considered by the Department to have benefitted from Title II-C federal vocational education funding and are subject to the Performance Standards and Measures for Vocational Education.

SECONDARY LEVEL

Area Vocational Schools (AVS) and Consortia with AVS

- All occupational training programs at AVS
- Any occupational training programs at consortium comprehensive high schools (CHS) that benefitted because of:

  --equipment purchases
  --curriculum purchases, or curriculum development or modification activities expenditures
  --special populations supportive services expenditures at CHS locations for students enrolled in vocational education programs at CHS

Comprehensive High Schools (CHS) and Consortia with CHS

- All occupational training programs at CHS, and all CHS locations if in consortium

POSTSECONDARY LEVEL

Area Vocational Schools (AVS) and Technical College

- All long-term adult occupational training programs (500 instructional hours or over)

Community Colleges and 4-Year Institutions

- All associate degree or certificate vocational/occupational training programs

APPENDIX D
TABLE I

1993-94 FEMALE VOCATIONAL EDUCATION ENROLLMENT BY LEVEL

LEVEL	1993	1994	PERCENT OF CHANGE
Secondary	66,098	65,557	- 0.8%
Postsecondary	37,181	35,363	- 4.9%
Adult	51,380	45,444	- 11.6%
TOTAL	154,659	146,364	- 5.4%

APPENDIX D
TABLE II

1993-94 MALE AND FEMALE ENROLLMENT IN VOCATIONAL EDUCATION PROGRAMS BY LEVEL

LEVEL	MALE	FEMALE	TOTAL
Secondary	51,347	65,557	116,904
Postsecondary	27,081	35,363	62,444
Adult	47,746	45,444	93,190
TOTAL	126,174	146,364	272,538
PERCENTAGE	46.3%	53.7%	100.0%

APPENDIX D
TABLE III

FISCAL YEAR 1994
CLIENTS SERVED BY SINGLE PARENT/DISPLACED HOMEMAKER PROGRAMS

LEVEL	MALE	FEMALE	TOTAL
Secondary	16	138	154
Postsecondary	73	3,949	4,022
Adult	47	3,444	3,491
TOTAL	136	7,531	7,667

94

APPENDIX D
TABLE IV

FISCAL YEAR 1993 FEDERAL FUNDS EXPENDED FOR SINGLE PARENT AND DISPLACED HOMEMAKERS BY SERVICE CATEGORY

SERVICE CATEGORY	AMOUNT	PERCENTAGE
Outreach and Orientation (Salaries)	$ 843,752	59.6%
Tuition	$ 240,490	17.0%
Child Care	$ 2,900	0.2%
Other (Instructional Materials and Administration)	$ 329,239	23.2%
TOTAL	$1,416,381	100.0%

APPENDIX E

SINGLE PARENT AND DISPLACED HOMEMAKER REGIONAL CENTERS

REGION I -Maryville

Name: **New Perspectives**
Funding Agency: Northwest Missouri Area Vocational School
Maryville, Missouri
Funding Level: $75,148
Contact Person: Shirley Twombly
Number Served: 509
Number Enrolled in Vocational Training: 298

REGION II -Kirksville

Name: **New Perspectives**
Funding Agency: Kirksville Area Vocational Technical Center
Kirksville, Missouri
Funding Level: $76,148
Contact Person: Cheryl Lock
Number Served: 755
Number Enrolled in Vocational Training: 624

REGION III -Platte County

Name: **New Perspectives**
Funding Agency: Northland Career Center
Platte City, Missouri
Funding Level: $84,178
Contact Person: Cheryl Parks Hill
Number Served: 629
Number Enrolled in Vocational Training: 316

REGION IV -Rolla

Name: **New Perspectives**
Funding Agency: Rolla Technical Institute
Rolla, Missouri
Funding Level: $84,178
Contact Person: Laura Hendley
Number Served: 339
Number Enrolled in Vocational Training: 318

SINGLE PARENT AND DISPLACED HOMEMAKER REGIONAL CENTERS (continued)

REGION V -Park Hills

Name:	**Career Connection**
Funding Agency:	Mineral Area College Park Hills, Missouri
Funding Level:	$91,978
Contact Person:	Nancy Wegge
Number Served:	1,662
Number Enrolled in Vocational Training:	1,051

REGION VI -Springfield

Name:	**New Perspectives**
Funding Agency:	Heart of the Ozarks Technical Community College Springfield, Missouri
Funding Level:	$84,177
Contact Person:	Shawn Arnold
Number Served:	829
Number Enrolled in Vocational Training:	719

REGION VI -Poplar Bluff

Name:	**New Perspectives**
Funding Agency:	Three Rivers Community College Poplar Bluff, Missouri
Funding Level:	$76,148
Contact Person:	Doris Pearson
Number Served:	180
Number Enrolled in Vocational Training:	161

REGION A -Kansas City

Name:	**New Perspectives**
Funding Agency:	Metropolitan Community College District Kansas City, Missouri
Funding Level:	$127,168
Contact Person:	Charles Henry
Number Served:	523
Number Enrolled in Vocational Training:	408

REGION B . -St. Louis

Name:	**Careers for Homemakers**
Funding Agency:	St. Louis Community College District St. Louis, Missouri
Funding Level:	$132,359
Contact Person:	Marlene Hanks
Number Served:	1,721
Number Enrolled in Vocational Training:	1,032

APPENDIX F

SINGLE PARENT OR DISPLACED HOMEMAKER CLIENT INTAKE FORM

FOR OFFICE USE ONLY
Process Code: ____ Year ____ Quarter ____
D - Dropped
C - Completed

Placed: ________
R - Related
N - Nonrelated
U - Unemployed

Date: ________________

Financial Aid Factor: ________________

Fiscal Year ________ Quarter ________

Social Security Number ________________ Today's Date ________________

1. Contact Information

First Name ________________ Last Name ________________ Other ________

Street ________________________________

City ________________ State ________ Zip ________ County ________

Home Telephone (   ) ________ Work Telephone (   ) ________ Birth Date ________

Sex (____M ____F) Is participant a welfare work/training program registrant? Yes ______ No ______

2. Educational Level:
a.___under high school
b.___high school grad/GED
c.___post high school
d.___college graduate
e.___post college
f.___graduate degree
g.___educationally disadvantaged

3. Number/Age of Children
Pregnant? (Y/N) ____
Number of Dependents ____
Number of Children ____
___ 0 - 2 years
___ 3 - 5 years
___ 6 - 12 years
___ 13 - 18 years
___ 19 - 21 years
___ Over 21 years

4. Out of Labor Force: FT PT
a. Less than 1 year
b. ___1 - 5 years
c. ___6 - 10 years
d. ___Over 10 years
e. ___Never employed
f. ___Currently working

5. Work History FT PT (in labor force)
a.___0 - 1/2 year
b.___1/2 - 2 years
c.___3 - 5 years
d.___6 - 10 years
e.___11 - 15 years
f.___16 - 20 years
g.___21 - 35 years
h.___26 - 30 years
i.___31-35 years
j.___36 years/more

6. Occupational Group
a.___Managerial/Admin.
b.___Professional/Tech.
c.___Sales
d.___Clerical
e.___Skilled Trade/Craft
f.___Operative
g.___Service worker
h.___Not applicable no work outside home

7. Gross Family Income
a. ___ 0 - 5,000
b. ___ 5,001 - 7,500
c. ___ 7,501 - 10,000
d. ___10,001 - 12,500
e. ___12,501 - 15,000
f. ___15,001 - 30,000
g. ___30,001 - 50,000

8. Race
a. ___White Non-Hispanic
b. ___Black Non-Hispanic
c. ___American Ind/AK Native
d. ___Hispanic
e. ___Asian/Pacific Islander
f. ___Not a U.S. Citizen
g. ___Other ________________

9. Income Source
a.___Social Security
b.___AFDC
c.___Child Support
d.___Maintenance
e.___Unemployment
f.___Disability
g.___Wages
h.___VA (retirement)
i.___VA (Education)
j.___None
k.___Other

10. Sources of Client Contact
a.___Radio or TV
b.___Newspaper
c.___Brochures
d,___Counselor
e.___Friend
f.___Other
g.___No response
Enter person's name or agency name here
____

11. Client Eligible Under
CHOOSE ONLY ONE
a. ___Single Parent
b. ___Displaced Homemaker
c. ___Male Nontraditional
d. ___Female Nontraditional
e. ___Girls & Women 14-25
MARITAL STATUS
___Married ___Disabled Spouse
___Single
___Separated
___Divorced
___Widowed

12. Needs
a. ___Career Education
b. ___Child Care
c. ___Education
d. ___Financial Aid
e. ___Health
f. ___Housing
g. ___Job Seeking
h. ___Legal
i. ___Personal Development
j. ___Transportation
k. ___Other

13. Action
a.___Adult Ed Program
b.___AFDC
c.___Counseling
d.___Education/Training
e.___JTPA
f.___Legal
g.___University
h.___Vocational Rehab.
i.___Vocational School
j.___Other
k.___Community College

14. AVTS or Community College ________________ 15. Regional Center Number: ________________

I understand that all of the information on this and any other project record is STRICTLY CONFIDENTIAL. Any information which might be used for statistical purposes may contain my name, but will not be released to the general public.

I authorize the project to consult with and release any pertinent data to support services, prospective employers, and/or training personnel on my behalf.

____

Participant's Signature   Date

BEST COPY AVAILABLE

16. Work History

List most recent job experience:

DATES	OCCUPATION	DUTIES/RESPONSIBILITIES	HOW LONG

17. Volunteer History:

Have you ever done volunteer work?

a. ____Church
b. ____School
c. ____Hospital
d. ____Community Organizations
e. ____Gov't/Nonprofit agency
f. ____Other

If yes, please give:

DATES	ORGANIZATIONS	DUTIES/RESPONSIBILITIES	HOW LONG

APPENDIX G

MODEL
SINGLE PARENT OR DISPLACED HOMEMAKER CLIENT
DETERMINATION OF GREATEST NEED

Client Name or ID ______________________________

	(1 to 10 possible for each)	POINTS
Age		______
Evaluation and Training		______
Length of Training		______
Dependents		______
Income		______
Work Activity		______
Work History		______
	TOTAL (70 points possible)	______

To determine the priority status, rank the clients from highest to lowest points.

CLIENT NAME	POINTS
______________________________	______
______________________________	______
______________________________	______
______________________________	______
______________________________	______
______________________________	______
______________________________	______
______________________________	______
______________________________	______
______________________________	______

MODEL
SINGLE PARENT OR DISPLACED HOMEMAKER CLIENT DETERMINATION OF GREATEST NEED
(PRIORITY SCHEDULING VIA MATHEMATICAL EVALUATION)

NAME ______________________________ TOTAL POINTS ______________

	POINTS BY CATEGORY	5	10	15	20	25	30	35	40	45	50
_____	AGE	10-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61+
_____	ELIGIBILITY					SP/HM					DHM
_____	INCOME (Total)					Over 15,001	12,501 15,000	10,001 12,500	7,501 10,000	5,001 7,500	0 5,000
_____	# DEPENDENTS	1	2	3	4	5	6	7	8	9	10
_____	EDUCATION (Yrs Completed)	Grad Degree	Post College	College Grad					Post H.S.	HS Grad/ GED	Under H.S.
_____	WORK ACTIVITY (Absent from Significant full-time employment)	Currently Working		1 yr. or less		1-5		6-10		Over 10	Never Empl.
_____	LENGTH TRAINING (Hours)	600-700			700-800			800-900			900+

FINANCIAL AID FACTORS

_____ % Tuition Paid

_____ Child Care

_____ Mileage

_____ Other

_____ SUBTOTAL

_____ TOTAL POINTS

APPENDIX H
TABLE I

STUDENTS RECEIVING SERVICES/VOCATIONAL TRAINING
NONTRADITIONAL TO THEIR GENDER (SEX EQUITY)

LEVEL	MALE NONTRADITIONAL	FEMALE NONTRADITIONAL	GIRLS AND WOMEN 14-25	TOTAL
Secondary	234	320	3,767	4,321
Postsecondary	149	548	73	770
Adult	221	392	1,301	1,914
TOTAL	604	1,260	5,141	7,005

APPENDIX H
TABLE II

PERCENT FEMALE ENROLLMENT IN "NONTRADITIONAL" PROGRAMS
SIGNIFICANT ENROLLMENT - ABOVE 5 PERCENT

CIP	Program Description	Secondary	Post-Secondary	Adult
01.0101	Agricultural Management	31.3	34.7	17.0
01.0201	Agricultural Mechanization, Gen.	8.1	20.0	--
01.0301	Agricultural Production	31.1	36.0	20.7
01.0401	Agricultural & Food Products Proc.	37.7	--	--
01.0501	Agricultural Supplies	35.5	--	--
01.9999	Agricultural, Other	32.8	--	--
02.0101	Agricultural Science	28.0	--	--
03.0101	Agricultural Resources	24.8	--	--
03.0401	Forestry	21.5	--	--
06.2001	T I Supv.	--	--	16.6
06.2003	Customized Training	--	--	37.1
10.0100	Comm. Tech.	--	--	20.2
15.0101	Architectural Engineering Tech.	--	5.2	--
15.0303	Electrical, Electronic Tech.	--	12.9	--
15.0402	Computer Maintenance Tech.	--	26.6	--
15.0506	Water Quality & Waste Water Treatment	--	12.2	--
15.0603	Industrial/Manufacturing Tech.	--	8.5	21.0
15.0701	Occupational Safety & Health Tech.	--	18.8	15.6
15.0702	Quality Control Tech.	--	23.1	27.5
15.0803	Automotive Engineering Tech.	--	7.8	--
15.0805	Mechanical Engineering/Tech.	--	7.8	--
15.1001	Construction/Building Tech.	--	22.5	--
15.1103	Hydraulics Tech.	--	--	8.3
15.0201	Civil Engineering/Civil Tech.	--	28.3	22.2
20.6001	Custodial, Gen.	--	--	25.0
20.0604	Custodian/Caretaker	--	--	22.7
43.0107	Law Enforcement	47.0	36.0	--
43.0201	Fire Protection & Tech.	16.6	--	--
43.0203	Fire Science	--	6.7	22.2
46.0101	Masonry	--	--	6.4
46.0201	Carpentry	--	--	7.3
46.0302	Electrician	5.2	--	5.0
46.0401	Building Maintenance	9.8	--	--
46.9999	Construction Trades, Other	5.2	--	5.0
47.0101	Electrical & Electronics Equip. Inst.	8.4	--	5.2
47.0104	Computer Installer & Repairer	--	12.5	18.9
47.0201	Heating, Air Cond., Refrig. Repair	--	8.6	--
47.0399	Industrial Equip. Main. & Repair, Ot	17.6	--	--
47.0501	Stationary Energy Sources Installer	--	8.3	5.2
47.0604	Auto Mechanic	--	--	5.4
47.0605	Diesel Mechanic	--	--	5.0

CIP	Program Description	Secondary	Post-Secondary	Adult
47.0606	Small Engine Repair	--	--	5.3
47.0607	Aircraft Mechanic/Tech. Airframe	26.9	--	--
47.0609	Aviation Systems Tech.	--	5.5	--
47.0699	Vehicle Mech. & Repairer	5.5	--	--
48.0101	Drafting, General	18.2	21.6	16.8
48.0199	Drafting, Other	--	19.0	5.7
48.0201	Graphic & Printing Equip. Op., G.	--	--	20.0
48.0299	Graphic & Printing Equip. Op., Ot.	--	--	36.0
48.0501	Machinist/Machine Tech.	5.5	8.6	--
48.0507	Tool & Die	--	16.6	--
48.0703	Cabinet Maker & Millworker	8.5	--	7.3
49.0104	Aviation Management	--	19.0	--
49.0202	Construction Equipment Operator	--	--	17.1
49.0205	Truck, Bus & Other Comm. Operator	--	15.1	6.7
50.0201	Crafts, Folk Art	33.3	--	--
50.0402	Commercial Art	35.0	--	--
50.0404	Industrial Design	--	16.4	--
51.0904	Emergency Medical Tech.	--	33.4	--
52.0201	Business Management	--	--	37.2
52.0205	OPR Management	--	--	31.0

APPENDIX H
TABLE III

PERCENT MALE ENROLLMENT IN "NONTRADITIONAL" PROGRAMS
SIGNIFICANT ENROLLMENT - ABOVE 5 PERCENT

CIP	Program Description	Secondary	Post-Secondary	Adult
04.0501	Interior Architecture	--	6.3	--
12.0503	Culinary Art	36.4	--	--
20.0102	Child Development, Guidance	--	--	31.3
20.0106	Family/Individual Health	--	--	27.0
20.0107	Family Living & Parenthood	--	--	24.9
20.0108	Food & Nutrition	--	--	13.1
20.0199	Consumer Home Ec. Educ., Other	--	--	20.0
20.0202	Child Care Provider	--	9.4	--
20.0303	Commercial Garment Worker	8.3	12.2	--
20.0306	Fashion & Fabric Consultant	5.7	--	--
20.0401	Institutional Food Workers, Gen.	--	33.3	--
20.0404	Dietician Assistant	--	38.4	16.6
20.0501	Home Furnishings/Equipment	--	--	5.7
20.9999	Vocational Home Economics, Other	--	16.7	--
51.0707	Medical Records Tech.	--	13.8	--
51.0803	Occupational Therapy Assist.	--	14.9	--
51.0806	Physical Therapy Assist.	--	29.1	--
51.0907	Medical Radiologic Tech.	--	27.2	20.5
51.0908	Respiratory Therapy Tech.	--	29.6	21.8
51.0909	Surgical/Operating Room Tech.	--	33.3	14.8
51.0910	Diagnostic Medical Sonography Tech.	--	11.7	--
51.1004	Medical Lab Tech.	--	23.0	--
51.1502	Mental Health Services Tech.	--	32.9	--
51.1601	Nursing R.N.	--	12.6	5.5
51.1613	Practical Nursing	--	13.2	10.9
51.1614	Nursing Assistant	--	17.0	15.7
51.1699	Nursing, Other	--	12.3	14.5
51.2601	Health Aide	12.1	--	--
51.9999	Health Professions, Other	--	17.4	14.7
52.0204	Office Supervision & Management	--	30.8	33.9
52.0401	Secretarial	--	22.5	9.3
52.0403	Legal Secretary	--	11.0	26.5
52.0404	Medical Secretary	--	5.2	5.0
52.0407	Data Entry	38.9	18.1	29.1
52.0408	General Office	14.5	15.7	19.0
52.1299	Business Information, Other	20.0	--	24.0

APPENDIX H
TABLE IV

FISCAL YEAR 1994 FEDERAL FUNDS EXPENDED ON PROGRAMMING FOR "NONTRADITIONAL" FEMALES, "NONTRADITIONAL" MALES, GIRLS AND WOMEN 14-25

SERVICE CATEGORY	AMOUNT	PERCENTAGE
Tuition	$ 152,980	24.2%
Outreach and Counseling (Salaries)	$ 178,565	28.2%
Other (Educational Materials, Basic Literacy Instruction, and Administration)	$ 300,183	47.5%
Child Care	$ 660	0.1%
TOTAL	$ 632,388	100.0%

APPENDIX I

STATEWIDE SEX BIAS AND STEREOTYPING PROJECTS

Name: **Careers Unlimited**
Funding Agency: Linn Technical College
Funding Level: $62,681
Contact Person: Debbie DeGan Dixon
Project Objective: To increase enrollment of women and girls in new and high technology programs through a series of five (5) interactive satellite teleconferences.

Name: **Project SERVE**
Funding Agency: University of Missouri-Columbia
Funding Level: $69,836 (Sex Bias)
$42,897 (Single Parent/Displaced Homemaker)
Contact Person: Judy Clark and Cindy Martin/Dr. Harley Schlichting
Project Objective: To aid vocational education programs in nontraditional, single parent and displaced homemaker recruitment. These services include outreach workshops, personal visits with local education agency officials, operating a computerized bulletin board, assistance in providing training materials, maintaining a free-loan library of resource materials, publishing a quarterly newsletter, developing brochures and posters, and maintaining single parent/displaced homemaker and sex bias data collection software.

Name: **Project ENTER**
Funding Agency: University of Missouri-Columbia
Funding Level: $47,694
Contact Person: Laura Roloff/Dr. Harley Schlichting
Project Objective: To provide technical assistance and act as a resource to faculty at area vocational schools and community colleges, to expand services and accessibility for men and women entering nontraditional occupations, and to develop individualized assistance plans for non-traditional students in various vocational education programs throughout the State. Conduct statewide "Breaking Tradition" awards competition.

Name: **Standards and Measures Project**
Funding Agency: University of Missouri-Columbia
Funding Level: $ 5,713 (Sex Bias)
$14,299 (Single Parent/Displaced Homemaker)
Contact Person: Susie Cox/Dr. Harley Schlichting
Project Objective: To develop standards and measures for identifying resources, process and performance standards by an advisory committee of local practitioners and to host a national teleconference to provide technical assistance to equity personnel in the nation.

APPENDIX J

EXEMPLARY PROGRAMS

AT-RISK STUDENT CENTERS

An extremely successful activity which received continued support during Fiscal Year 1994 was a combined effort using Carl D. Perkins Vocational and Applied Technology Education Act funds, state vocational education funds, and Job Training Partnership Act funds to establish sites to provide focused educational services to at-risk youth. These services were provided at area vocational schools to take advantage of the area school concept and because of the availability of expanded vocational skill training opportunities. During Fiscal Year 1994, 42 area vocational schools were providing specialized services for 3,489 at-risk individuals.

The increasing concern about students in Missouri schools who exhibit the characteristics of a "dropout", and for those students who have actually left school, caused education administrators to search for answers to help these students provided the impetus to establish this program. Through the leadership of the State Director of Vocational Education the "At-Risk Center" program concept was established. Each center was designed to provide a connection between academic and occupational skill training for the students involved. This was accomplished through a realistic application of basic skills.

The first step in working with at-risk youth was assessment. This assessment included interest, aptitude, ability, and basic skills. In addition to assessment, at-risk youth were provided an opportunity to explore vocational offerings, and to receive information on employment preparation. The results of the assessment were used to develop an intervention strategy to meet the specific needs of each at-risk youth served. Three types of intervention were utilized:

1. Counseling - The counselor's sole responsibility was to provide intensified guidance services to address the needs of the at-risk youth. These services were provided in both individualized and small group counseling settings. The main purpose was to build self-esteem and provide youth a self-fulfilling prophecy for success.
2. Basic Skills Instruction - Instructional efforts to remediate basic skills deficiencies were provided. The goal was to exit each at-risk youth or dropout with occupational skills, and a high school diploma or GED.
3. At-Risk Center - Tutoring, remediation, high school credit toward graduation, or a GED were provided. Services were offered to several school districts in a prescribed service delivery area.

The effort to provide alternative education services for youth who are determined to be "at-risk" is only beginning. Missourians are concerned about students who are not successful in school. This program, offered through vocational education, is one example of the efforts being made to improve our schools.

EFFECTIVENESS INDEX FORMULA

In Fiscal Year 1994, the Department again provided a portion of state vocational education funds to support area vocational schools operating secondary vocational education programs by using a funding mechanism which provides incentives for improving their labor market effectiveness. In addition, this funding mechanism was expanded to include secondary vocational education programs at comprehensive high schools. The Effectiveness Index/Incentive Funding (EI/IF) was administered to distribute $13,710,000 in state funds.

This alternative incentive funding practice was prompted by a study of vocational education trends and priorities which was supported by the 1983 Missouri General Assembly, and conducted in 1984. This study recommended that action be taken by the Department to consider such factors as duplication of programming, labor market demands, labor supply, and placement rates of vocationally educated students in the funding and approval of vocational education programs.

This performance-based funding mechanism was based on two (2) factors, estimated labor market supply and demand for workers completing specific vocational education programs; and the actual placement of program exiters. Separate scores were calculated for each component and then summed to obtain an institution's total effectiveness score. The total effectiveness score determined the amount of reimbursement that was received for each unit of instruction delivered by each school.

Missouri's performance-based funding system has reemphasized accountability in the public delivery system for vocational education. The EI/IF has improved secondary vocational education programs in the state by promoting better placement of students who participate in vocational education programs, and by rewarding a more appropriate alignment of vocational education program offerings and the state's labor market needs.

EMPLOYMENT SECURITY PLACEMENT PROJECT

The Employment Security Placement Project concept was established during Fiscal Year 1985 through the cooperative efforts of the Department of Labor and Industrial Relations, Division of Employment Security; the Department of Elementary and Secondary Education, Division of Vocational and Adult Education; and four (4) area vocational schools. During the pilot phase, a full range of job placement services for students enrolled at area vocational schools was developed. Due to the continued success of this project, it has again expanded to include 31 area vocational schools, during Fiscal Year 1994. Division of Employment Security, Job Service technicians provided a full-range of placement services for youth and adults enrolled in vocational education programs at the participating area vocational schools. The placement services included:

- Provision of occupational and career information, exposure, and career exploration activities;
- Provision of job development services;
- Provision of job matching of each individual's qualifications and interests with employer's job orders, and follow-up services to interested applicants;
- Introduction and explanation of labor market information;
- Instruction in job seeking and job retention skills; and
- Preemployment coaching, and resume preparation.

Through this project's activities, in combination with the educational services provided at the area vocational schools, students have been provided enhanced access to employment information, occupational training, and specific job placement services which have increased their ability to enter employment and function effectively in the workplace. During Fiscal Year 1994, the project provided 1,446 placements and reported 1,345 employer contacts for new job development.

CONSUMER AND HOMEMAKING GRADS PROGRAM

In 1990, eleven percent (11%) of the women who had their first baby were unmarried teens who had not finished high school. In order to help address this critical problem, federal funds were used during Fiscal Year 1992 to provide an inservice program for over 50 teachers and administrators on the topic of keeping parenting teens in school until graduation. As a result of this inservice, the Excelsior Springs School District in Fiscal Year 1993 implemented a Graduation, Reality, and Dual-Role Skills (GRADS) program. The model for this program was developed in Ohio by the Division of Vocational and Career Education and disseminated through the National Diffusion Network. GRADS is a vocational home economics education instructional and intervention program with its major goal being to keep pregnant and parenting teens in school. Additional goals are to encourage good health care practices and help young parents set occupational goals.

Title III, Part B funds, Beginnings Grant funds through the University of Missouri Extension Center and local funds were combined to start up the GRADS program. Twelve (12) students, 11 females and one (1) male were enrolled in GRADS during the 1993-94 school year. Two (2) of these students had individualized education programs for learning disabilities and four were enrolled in job training programs. Eight (8) of the students graduated. The central theme for the curriculum emphasizes practical reasoning as an effective method of problem solving are used to work through the four (4) content areas of positive self development, pregnancy, parenting, and economic independence. Collaboration and linkages with agencies such as the county health department are used to help address the barriers teen parents face to being able to remain in school through graduation.

One (1) GRADS student writes, "I am 18 years old, a senior in high school and six months pregnant . . . thanks to this class, I will be graduating next week. Without this class, I probably would have been just another statistic as a dropout. But I hung in there with the help of the GRADS class."

CONSTRUCTION APPRENTICESHIP TECH PREP CONSORTIUM

The Construction Apprenticeship Tech Prep Consortium in Kansas City, Missouri is unique and is experiencing success in developing a Tech Prep Education concept utilizing ongoing registered union and non-union apprenticeship programs. The goal of the Construction Apprenticeship Tech Prep Consortium is "to develop and initiate a four-year Tech Prep Education program which provides secondary students with improved opportunities to enter and progress through an apprenticeship program in the highly skilled technical occupations."

The consortium has been expanded from the inclusion of six (6) area vocational schools to 13 area vocational schools and three (3) comprehensive high schools. Students from six (6) of the schools were tested for the Carpenters' Apprenticeship during Fiscal Year 1994. The following chart shows the number of hours awarded, the number of students, and the percent of a journeypersons pay rate the student will earn.

CARPENTERS ASSESSMENT
FOR ADVANCED HOURS

HOURS AWARDED	NUMBER OF STUDENTS	% OF JOURNEYPERSONS RATE
1300	2	60% - $10.96
1000	3	55% - $10.04
800	2	55% - $10.04
600	2	55% - $10.04
400	2	50% - $ 9.13
300	2	50% - $ 9.13
200	5	50% - $ 9.13
100	3	50% - $ 9.13

The following skill crafts have completed an agreement to participate and accept apprentices: Carpenters Apprenticeship (original craft); Ironworkers Apprenticeship; Cement Masons Apprenticeship; and Roofers

Apprenticeship. The following crafts have expressed an interest or are in the process of developing an agreement to accept apprentices: Bricklayers Apprenticeship; Electricians Apprenticeship; Plumbers Apprenticeship; Pipefitters Apprenticeship; Sheet Metal Apprenticeship; and Painters Apprenticeship. For more information contact Ron Youngs, Tech Prep Coordinator, Construction Apprenticeship Tech Prep Consortium, 105 West 12th Avenue, North Kansas City, Missouri 64116 (Telephone: 816/471-5050).

APPENDIX K

MISSOURI SCHOOL IMPROVEMENT PROGRAM

The State Board of Education has authorized a complete revision of the school classification and accreditation program. The existing school classification program was established in the early 1950s. Each year school districts were rated "AAA", "AA", or "Unclassified". The new program, called the "Missouri School Improvement Program" (MSIP) is different in philosophy, approach, and outcome from the former system. Formal implementation of the Missouri School Improvement Program began the fall of 1990. The existing School Classification Program and the Missouri School Improvement Program will operate simultaneously during the first five-year period which means districts will continue to carry their "U", "AA", "AAA" ratings along with their new MSIP levels of designation. This new program provides:

1. Emphasis on encouraging systematic school improvement;
2. Evaluation based on a balanced assessment of resources, educational processes, and productivity;
3. A reporting system which recognizes strengths, concerns, and suggested resources to assist in improvement strategies;
4. Systematic, planned development and implementation of a formal, district-wide improvement plan; and
5. A single, comprehensive review which assess all of the district's program, services, and activities.

The school improvement standards utilized in this program are organized into three major sections: Resource Standards, Process Standards, and Performance Standards. In general, the Resource Standards are concerned with the basic requirements that all districts must meet. Judgements about such areas as class size, courses offered, and staffing patterns will be made from three perspectives: (1) a set of "minimums" established by the State Board of Education, (2) the "norms" for districts of similar size, and (3) what is deemed "desirable" as determined from research and professional judgement. Process Standards are more qualitative in nature and include standards on Curriculum, Instruction, Instructional Climate, Learning Resource Centers, Guidance and Counseling, Professional Development, Supplemental Programs, Governance and Administration, Facilities and Safety, and Support Services. The Performance Standards include three sets of indicators which will be applied to all schools: (1) student achievement, (2) persistence to graduation, and (3) student follow-up data. School districts also select other performance criteria that will apply to their population.

Under the Missouri School Improvement Program, each district receives a comprehensive review once every five years conducted by a team composed of

Department staff, educators from other local districts, and local board members and lay persons, if appropriate. Department staff from each division, including the Division of Vocational and Adult Education, participate in this comprehensive review. Following the review, the district receives a comprehensive report, including specific program reports, assessing strengths and weaknesses, and suggested resources to assist in improvement. Districts develop comprehensive School Improvement Plans, complete with timelines and resource allocations, to address the concerns contained in the report. Implementation of the plans are monitored by the State Supervisors of Instruction and technical assistance for improvement activities is provided by divisional staff members.

APPENDIX L

STATUS OF TECH PREP IN MISSOURI

1993-94

Final Report

Project No. 9311343-1

July 1994

Submitted to:

Division of Vocational and Adult Education

Department of Elementary and Secondary Education

Jefferson City, Missouri

Submitted by:

Sheila Ruhland

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Table of Contents

Review of Literature L.3

The Development of Tech Prep in Missouri L.4

Objectives of the Project L.7

Procedures L.9

Findings L.10

Articulation and Collaboration L.12

Student Program Planning and Implementation L.13

Staff Development L.14

Curriculum L.15

Marketing L.15

Program Effects L.16

Evaluation L.16

Program Barriers L.17

Implications L.17

References L.19

Review of Literature

Educational evaluation has developed dramatically over the last 20 years. Attempts have been made to clarify the meaning of evaluation and to put into perspective the classifications of evaluation approaches. Numerous definitions for evaluation can be found in the literature. An accepted definition for evaluation has been the providing of information for decision making (Cronbach, 1963, & Alkin, 1969, & Stufflebeam, et al. 1971). Worthen and Sanders (1973) expanded this definition further to include the "determination of the worth of a thing to include obtaining of information for use in judging the worth of a program, product, or procedure" (p. 19). Stufflebeam and Webster (1980) defined educational evaluation as "one that is designed and conducted to assist some audience to judge and improve the work of some educational object" (p. 6). Recently the joint committee on standards (1981) for evaluation published their definition of evaluation as "the systematic investigation of the worth or merit of some object" (p. 12).

Program evaluation data may be collected for three major purposes (Chelimsky, 1985). These purposes include: (a) policy formulation, to assess and or justify the need for a new program; (b) policy execution, to ensure that a program is implemented in the most cost effective way; and (c) accountability, to determine the effectiveness of an operating program and the need for continuation, modification, or termination.

Research has been conducted to assess vocational and educational program evaluation, and to identify outcome indicators for programs (Hoachlander, 1991; Strickland & Asche, 1987; Weiss, 1972). Limited research has been done to specifically identify the outcome indicators for Tech Prep programs. An outcome indicator is used to determine the program quality, effectiveness, and goal attainment. Dornsife (1991) identified outcome indicators to include percentage of course enrollment, program competitions, job placement, number of articulated classes, number of articulated agreements, marketing activities, staff development, advising, and student tracking.

Hammons (1992) identified six focus component groups from which outcome indicators could be grouped. The student component indicators include student retention, grade point average, and demonstration of job competency. The facilitator component includes faculty professional development, guidance programs, and access to special populations. The professional development component relates to obtaining information related to academic and vocational skills attainment and advanced courses taken. The attitudes/perceptions component includes recognition and level of satisfaction with the program. The careers focus component evaluates job placement, employment levels, and earning levels. The sixth component, resources, identifies the quality and quantity of resources utilized.

A study was conducted by Bragg and Layton (1992) to determine the status of Tech Prep. Data were collected related to Tech Prep philosophies and policies, staffing, administrative structure, evaluation, marketing, and staff development. A list of outcomes was presented to the respondents to ascertain if they had been established in their states. It was reported by Bragg and Layton "since fewer than forty percent of the states have established outcomes (for Tech Prep) at the state level, a major concern for all leaders at all levels should be the identification of expected outcomes and evaluation procedures" (pp. 4-17).

A recent study by Roegge, Wentling, Leach, and Brown (1993) found that using the concept mapping process assisted with displaying the major components for Tech Prep programs. They identified the relationships between the components and priorities placed on each component and cluster of related components. The concept mapping process provided a pictorial representation of Tech Prep stakeholder's perceptions. Clusters identified included benefits, populations served, outcomes, program components, enrollment incentives, external involvement, planning and support, staff development, and articulation/integration.

The literature contains several studies that were conducted to identify outcome indicators for program evaluation. The indicators varied based upon the purpose of the evaluation. No model was found that specifically applied to the evaluation of Tech Prep programs and the identification of specific outcome indicators. Therefore, this study was framed to collect data and to establish a process to provide information about the Tech prep programs in Missouri.

The Development of Tech Prep in Missouri

The following description of Tech Prep Education in Missouri was distributed at the 1993 Cooperative Conference for School Administrators conducted by the Department of Elementary and Secondary Education (DESE) (1993).

> The Tech Prep Education initiative started by asking eligible recipients who were interested in Tech Prep Education to respond to a Request for Proposal (RFP). Eligible recipients were asked to respond to six specific goals identified in the federal legislation. The identified goals are:
>
> - Encourage students to develop new learning techniques necessary to meet the challenges of a technological society,
> - Integrate academic and technical instruction,
> - Restructure vocational and academic education curriculum,
> - Expand education and technical options for student
> - Increase competencies of high school students in the areas of math, science, communication skills and problem-solving skills, and

- Increase student enrollment in vocational programs by emphasizing opportunities for college program study.

RFPs specifically addressed how the Tech Prep Education concept would be carried out under an articulation agreement between the participants in the consortium. Articulation is defined as a process for coordinating the linking of two or more educational systems within a community to help students make a smooth transition from one level to another without experiencing delays, duplication of courses or loss of credit.

Project proposers were asked to include the development of Tech Prep Education curricula appropriate to the needs of the consortium participants which must consist of the two years of secondary school preceding graduation and two years of higher education, or an apprenticeship program of at least two years proficiency in mathematics, science, communications, and technologies designed to lead to an Associate Degree or certificate in a specific career field (DESE, 1993, pp. 4-5).

The Department of Elementary and Secondary Education received nine project applications in Fiscal Year 1993 which was the first year of funding. Six of the nine applications were approved for three years (1992-94) with funding up to $350,000 for the three-year time period. Six additional projects were approved and funded the second year (1993-95).

Approved Tech Prep Education projects:

- Include inservice training for teachers that is designed to train teachers to effectively implement Tech Prep Education curricula, and provide for joint training for teachers from all participants in the consortium,

- Include inservice training for guidance counselors designed to effectively recruit students into the Tech Prep educational system, ensure their success in completing the program, and to ensure that students are appropriately placed in employment,

- Provide equal access to the full range of technical preparation programs to individuals who are members of special populations, including the development of Tech Prep educational services appropriate to the needs of such individuals, and

- Provide for preparatory services to assist all participants (DESE, 1993, pp. 7-9).

The approved Missouri Tech Prep Education consortia includes:

LINN TECHNICAL COLLEGE
J. Rick Mihalevich, Coordinator
Mid-Missouri Tech Prep Consortium
Linn Technical College
One Technology Drive
Linn, Missouri 65051

STATE FAIR COMMUNITY COLLEGE
Clark Harris, Coordinator
Heart of Missouri Technical Education Consortium
State Fair Community College
3201 West 16th Street
Sedalia, Missouri 65301

NORTH CENTRAL MISSOURI COLLEGE
Bill & Carol Gutshall, Coordinators
North Missouri Tech Prep Consortium
North Central Missouri College
1301 Main Street
Trenton, Missouri 64683

METROPOLITAN COMMUNITY COLLEGE
Jim Everett, Coordinator
Northwest Missouri Tech Prep Consortium
High Technology Training Resource Center
The Metropolitan Community College
3200 Broadway
Kansas City, Missouri 64111

EAST CENTRAL COLLEGE
Debbie Jaeger, Coordinator
East Central Missouri Tech Prep Consortium
East Central College
P.O. Box 529
Union, Missouri 63084

Larry Gorsh, Tech Prep Coordinator
Rolla Technical Institute
1304 East Tenth Street
Rolla, Missouri 65401

MINERAL AREA COLLEGE
Dr. Ray Walsh, Coordinator
Southeast Missouri Tech Prep Consortium
Mineral Area College
P.O. Box 1000
Park Hills, Missouri 63601

THREE RIVERS COMMUNITY COLLEGE
Sue Waggoner-Flowers, Coordinator
Bootheel Tech Prep Consortium
Three Rivers Community College
2080 Three Rivers Boulevard
Poplar Bluff, Missouri 63901

OTC-GRAFF CAREER CENTER
Marc Doss, Coordinator
Heart of the Ozarks Tech Prep Consortium
Ozark Technical College
815 North Sherman
Springfield, Missouri 65802

PIKE/LINCOLN TECHNICAL CENTER
Bob Kirkpatrick, Coordinator
Mid-Rivers Tech Prep Consortium
Pike/Lincoln Technical Center
P.O. Box 38
Eolia, Missouri 63344-0038

ST. LOUIS COMMUNITY COLLEGE
Marcia Pfeiffer, Coordinator
St. Louis Area Tech Prep Consortium
St. Louis Community College - Forest Park
5600 Oakland Avenue - F324
St. Louis, Missouri 63110-1393

MOBERLY AREA COMMUNITY COLLEGE
John Ross, Coordinator
Moberly Area Community College
College and Rollins
Moberly, Missouri 65270

RAYTOWN
Ron Youngs, Coordinator
Construction Apprenticeship Tech Prep Consortium
105 W. 12th Avenue
North Kansas City, Missouri 64116

Objectives of the Project

1. To describe how Tech Prep has been conceptualized in Missouri. Related objectives included:

   - To identify and interpret the mission and goals of each Tech Prep consortium,

   - To look for commonalities/differences, unique patterns among the goals and missions of Missouri Tech Prep consortia,

- To identify, categorize, and describe general characteristics of each consortium (e.g., geographic size, characteristics of the region, number of participating schools, characteristics of the coordinator, institutional history in articulation, level of commitment, etc.),

- To describe the organizational structure (administration, committees, and responsibilities), and

- To describe the operating environment and context of each consortium (attitudes, finance, logistics, etc.).

2. To describe the processes undertaken as a part of each Tech Prep initiative. The areas of study included:

    - Marketing
    - Articulation and Collaboration
    - Curriculum
    - Evaluation
    - Student Program Planning and Implementation
    - Staff development
    - Program barriers

3. To identify the outcomes associated with Tech Prep implementation. Potential outcomes included:

    - Policy changes (relationships among/within institutions, educational reform)
    - Faculty attitudes and practices (collegiality, views of vocational education, approach to teaching and curriculum development)
    - Changes in curriculum and instructional practices (integration of academic and vocational content)
    - Labor market changes (job patterns, hiring practices)
    - Special populations
    - Articulation (type, number, style, etc.)

4. To determine relationships among Tech Prep outcomes and:

    - Mission and implementation models

- Characteristics of the consortia
- Implementation processes

Procedures

Two overall research goals were identified to collect data to meet the objectives of the project. The first goal was to describe Tech Prep in Missouri. This involved an analysis of each of the state's Tech Prep RFPs to determine their philosophy, purpose, scope, and mission. This was essential to build an overview of Tech Prep conceptualization as it is structured and evolving on a statewide basis. The second goal was to describe the processes undertaken as a part of each Tech Prep initiative. This area outlined and detailed the specific activities and approaches each consortium was taking to implement Tech Prep. The process involved developing categories within which Tech Prep implementation could be analyzed. These categories which were designed to provide a structure for baseline data organization included the following:

- Articulation and collaboration
- Student program planning and implementation
- Staff development
- Curriculum development
- Marketing efforts
- Program effects
- Evaluation strategies

A summary of the major activities completed as part of this project during 1993-1994 included: (1) a review of the 12 consortium's RFPS, (2) an assessment of Missouri's current status of Tech Prep, (3) the development of a Tech Prep coordinator survey, (4) a pilot test of the coordinator survey, (5) structured interviews to gather data from the 12 tech prep coordinators (see Appendix A), and (6) and analysis of the data. The information to be collected was to identify Missouri specific data which was not submitted by the consortia in the national report managed by Mathematica Policy Research, Inc. (MPR, 1994) on the form, "Inventory of Local Tech-Prep Planning and Implementation, Fall, 1993." However, Missouri data from the national study were reviewed as a part of this study. Appropriate tables from the MPR are attached to this report.

Findings

An analysis of the 12 consortium's Tech Prep RFPs submitted in 1991, 1992, and 1993 indicated that as many as 86 secondary schools were initially involved in a local Tech Prep consortium. A typical local Tech Prep consortium involved 7 secondary and 1 postsecondary school. On the average, 7 of the 12 consortia addressed business and industry participation, and no four-year colleges and universities were included in the consortiums. However three consortia indicated they were in the discussion stage with a four-year institution.

Data from Tables 1, 2, and 3 of the MPR study indicated that as many as 210 secondary districts were involved with the 12 Tech Prep Consortia in Missouri by the fall of 1993. The consortium governing boards involved district and school administrators at both the secondary and post-secondary level, as well as faculty and representatives of business and industry. The distribution of faculty and business and industry representatives varied among the consortia. The average FTE staff in the Tech Prep Consortia in Missouri was 1.2, with the range of 1 to 3 persons involved.

Vocational educators are leading the reform movement. Of those involved in Tech Prep programs, vocational faculty, counselors and administrators were represented more often than academic faculty. Fifty percent of the Tech Prep coordinators had held their jobs for longer than 24 months.

The funding for Tech Prep included the following requests and types of allocations as noted in Tables 1, 2, and 3.

Table 1

Distribution of Funds by Year

	Year 1	Year 2	Year 3
Program administration	53%	38%	71%
Staff development	27%	25%	15%
Equipment purchases	2%	14%	1%
Curriculum development	1%	6%	1%
Curriculum materials	*%	3%	3%
Promotions and marketing	4%	5%	2%
Travel	13%	10%	7%
Evaluation and other	*%	*%	*%
	100%	100%	100%

*less than 1%

Table 2

Total Allocation of Funds by Area Requested

	Total
Program administration	49%
Staff development	24%
Equipment purchases	8%
Curriculum development	4%
Curriculum materials	2%
Promotions and marketing	4%
Travel	10%
Evaluation and other	*%
	100%

*less than 1%

Table 3

Percent Yearly Allocation of Funds

Year 1	29%
Year 2	52%
Year 3	19%
	100%

A review of the MPR data from Tables 4, 5, and 7 indicated that the funding of consortia varied from the initial request. Dollar figures revealed that the mean grant amount for 1992 was in excess of $163,000. For Fiscal Year 1993, it was almost $167,000. Missouri Consortia used funding from Perkins Title 3E, other Perkins, and limited local funds. The majority of support came from Title 3E, with a mean of $115,136.00. The percentage of expenditures for 1993 differed from the request in that 20% went for administration, 29% for staff development, 15% for curriculum development and review, 13% for equipment, and 15% for marketing and promotion of programs. It should be noted that the distribution of funds for 1993, while differing from those requested, placed more emphasis on specific activities to support program implementation.

Seven focus components were identified to collect information from each consortium director to describe activities related to Tech Prep implementation. A description and a summary of the progress for each component is described in this section of the report. The information is based on data from the interviews conducted with the 12 consortium directors as well as data presented in the Missouri tables of the MPR report.

Articulation and Collaboration

The focus component examined the method of articulation, types of articulation agreements that reflect a 2+2 program of studies providing pathways into postsecondary education, and the evaluation process if any that is used once articulation agreements have been developed. Additional questions were asked that provide input into the overall coordination efforts used to involve business and industry, counselors, and vocational and academic faculty in the development of the consortium's Tech Prep efforts.

Tables 8 and 16 of the MPR data provided information about articulation activities of the various consortia. Two consortia reported no agreements. Ten had specific articulation agreements in subject areas related to granting credit, revising courses, defining course sequence, and four had general articulation agreements. The Tech Prep programs related to the 2+2 concept in eleven consortia and in the 2+2+2 concept in one consortium. In addition, Table 8 indicated that much beginning work on career clusters as a feature of the Tech Prep programs. Table 6 provided more specific information about assistance of business and industry. In 1993, there was involvement of industry and business in providing tours in two locations and being involved in identifying outcomes in career areas and in helping to promote awards and materials. Ten of the twelve consortia reported some involvement of business and industry or labor. As reported in Table 17, occupational areas related to articulation varied among the consortia. Four consortia reported including the articulation in agriculture, eight in business, office, and marketing, five in engineering technology, six in health and human services, and seven in mechanical and industrial trades. Ten consortia reported some work on articulation in all areas.

The key findings were as follows:

- A primary focus of the effort was on explaining Tech Prep to various constituencies which included faculty, counselors, administrators, etc.

- Most consortiums were in the initial stages of establishing articulation agreements. Many details of the articulation agreements still needed to be developed and formalized.

- Articulation agreements were occurring at the program versus competency level. Most frequently noted program articulation agreements included: electronics, automotive technology, business and office technology, and drafting/design.

- A barrier in the development of articulation agreements was the lack of common programs/courses at the community college and secondary levels.

- There appeared to be some lack of flexibility at the community college level to adapt courses to articulate with the secondary level programs.

- Articulation was most effective when a direct match between an area vocational technical school (AVTS) and a community college program existed (i.e. electronics).

- College credit was found to be typically available for selected high school courses taken on the Tech Prep track, with some institutions also granting advanced placement.

- A majority of consortia anticipated revising their articulation agreements on an annual basis with formal procedures being developed with input from Dean, Department Chairperson, Principal, and/or Advisory Committee.

- Business and industry representatives have been involved primarily through advisory committee appointments, developing competencies, and assisting with business/career pathways. The degree to which they were involved with articulation efforts was not clearly identified.

- Counselors and vocational and academic teachers at the secondary level have attended workshops and served on implementation teams more often than community college faculty and staff.

- Vocational teachers have taken an active leadership role in the development of Tech Prep integration activities and articulation agreements.

- Counselors and academic teachers have participated in meetings but have not taken an active leadership role. These individuals appear to be in an information gathering stage.

Student Program Planning and Implementation

Student program planning and implementation focused on identifying what methods, if any, were being used by counselors to enroll students in a Tech Prep program and to assess if counselors have an understanding of Tech Prep. Program planning efforts also provided a record of individualized four-year educational plan for students. These plans revealed that: (1) vocational students' program of studies match their perceived goals; and (2) vocational students are taking a sequence of mathematics, science, and communications courses that is congruent with their vocational program. School counselors and teachers utilized these programs of study models in developing students' educational plans.

The data in Table 9 of the MPR study revealed that by 1993 seven consortia had yet to define their career clusters. For those consortia with defined clusters, four included agriculture, five business, office, and marketing, three engineering technology, five health and human services, and four mechanical and industrial trades. In addition three were providing prior work site visits, and two were providing for part-time employment for students. Table 18 indicated that career guidance services were available in various ways through all of the consortia.

Ten included special career development classes, eleven had career development integrated into academic or vocational classes as well as working on individual counseling, eleven were including trips to work sites and twelve were including work on job placement by instructors or counselors.

The key findings were as follows:

- Student recruitment and outreach efforts were in the initial stages of development. Consortia recognize that this as an important area.

- A variety of products have been developed to promote recruitment efforts including information packets, posters, folders, videos, etc.

- The majority of institutions were in the planning stage of a four-year plan of study (career clusters) with counselors and teachers primarily involved with developing the plan for students.

- The career cluster approach to designing a four-year plan of study is typically introduced to 8th grade students.

Staff Development

The staff development component focused on whether there was a plan which outlined and provided staff development activities for all Tech Prep facilitators, including administrators, counselors, and academic and vocational faculty. Specific types of staff development activities that were provided during the past calendar year as well as possible activities planned for the upcoming year were identified.

The key findings were as follows:

- Workshops and meetings were held to inform staff about Tech Prep rather than approaches designed to provide more in-depth implementation and development activities.

- Successful staff development activities have included summer institutes, meetings, workshops on applied academics, teaching counseling techniques, and attendance at state and national Tech Prep conferences.

- Other frequently used approaches have been site visits to successful programs, team teaching efforts, and attending college classes.

- Faculty have been involved through school level committee meetings, inservice awareness workshops, implementation teams, and interacting with invited speakers.

Curriculum

This focus component was designed to assess the degree to which vocational and academic teachers were working together to coordinate and integrate academic and occupational education. Respondents were asked to describe ways that faculty have integrated mathematics, science, communications, and technology competencies into their curriculum to support workplace readiness skills. Tech Prep consortium directors were also asked if any career clusters have been developed thus far to assist students in completing a four-year educational plan.

The key findings were as follows:

- The number of consortia with developed career clusters identified included: business (8), health (8), human services (5), technology (5), agriculture (3), industrial manufacturing (3), construction (2), public service (2), and science and natural resources (1).

- Concern was expressed over limited budgets to purchase curriculum materials.

- Applied academics tended to be stand-alone courses for mathematics, whereas language arts, physics, and biology units were integrated or infused into other academic courses. The MPR data in Tables 14 and 15 addressed the use of the applied academic curriculum. Eight consortia reported use of the applied biology/chemistry, ten the applied communications, two the applied economics, eleven the applied mathematics, two the chemistry in the community, and nine principles of technology during the 1993-94 school year.

- The use of commercially developed curriculum (CORD, AIT, and PACE) was evident along with team teaching activities in the beginning stages of integration efforts.

Marketing

A marketing focus category was included to identify the most successful efforts. Promotion and marketing materials should reflect the 2+2 Tech Prep concept, articulation, sequence of courses chosen within a vocational interest including the work in math, science, communications, and technology. Data were collected related to the overall perception of businesses, parents, students and education facilitators regarding the promotion and marketing efforts utilized thus far.

The key findings were as follows:

- Primary marketing efforts included the use of brochures, flyers, newsletters, and newspaper articles.

- In some cases a resource notebook for counselors and teachers has been developed.

- Promotional items have included coffee mugs, cups, notepads, and plaques.

- Most reported that their marketing efforts in the schools have been effective.

- Minimal benefits have been derived from newsletters, direct mail letters, and television spots directed at a wider audience.

Program Effects

To fulfill program accountability requirements, consortiums will need to collect data on outcome indicators such as program enrollment, placement data, dropout rate, and test scores of Tech Prep students. Program effects are used to comprehensively measure the quality, effectiveness, and goal attainment of an educational program.

The key findings were as follows:

- The majority of consortiums have not identified if changes are occurring in student test scores or changes in dropout rate; consortiums are still looking for a method to track this information.

- Some consortiums are beginning to gather initial baseline date related to selected MMAT scores (i.e. math).

Evaluation

Evaluation of local Tech Prep education programs should have two primary objectives. First, it describes the Tech Prep program, documenting the number of program areas involved, their characteristics, the institutions involved, population served, and planning, implementation, and evaluation activities. Second, the evaluation should identify effective practices. This focus component looked specifically at the methods, if any, that the consortium has developed to evaluate their Tech Prep efforts. The evaluation component identified if a timeline had been developed depicting the consortia's goal/objectives and has it been evaluated to determine if these goals/objectives are being met on a timely basis.
The key findings were as follows:

- In all cases, project goals and objectives were developed, but no formal evaluation process had been identified.

- Evaluation methods have not been identified in most consortia.

- Consortium directors indicated that evaluation efforts will need to include (at a minimum) number of students participating, dropout rate, number of articulation agreements, and involvement of business and industry.

Program Barriers

A study of the local implementation of Tech Prep would be incomplete without focusing at least partially on barriers. A question was asked about what barriers, if any, has the director encountered in implementing the Tech Prep concept. A national study that examined Tech Prep in the United State (Bragg, Layton, & Hammons, 1994) identified barriers that were perceived to impact local Tech Prep implementation. The top 5 barriers and their mean scores included: (1) little time for joint planning, 4.21; (2) failure of four-year schools to grant credit for Tech Prep courses, 4.08; (3) lack of general awareness of Tech Prep, 4.06; (4) lack of staff, time and money, 4.04; and (5) belief that Tech Prep is a passing fad, 3.84.

The key findings were as follows:

- The degree of business and industry involvement has been limited to serving in an advisory role.
- One common obstacle has been late receipt of funding.
- Resistance to systemic reform which is required for Tech Prep to be successful must be overcome (i.e. collaboration among academic and vocational teachers, genuine curriculum alignmentand integration, etc.).
- A lack of time to implement the comprehensive range of activities required for Tech Prep.
- Turfism among academic, vocational, secondary, and postsecondary faculty and administration remains a barrier.
- Student's and the public attitude toward "vocational" versus "college prep" needs to be changed.
- A general lack of awareness and understanding of the concepts of Tech Prep.

Implications

- Tech Prep implementation will take time and involves systemic change.
- The majority of the consortiums are still in the early stages of Tech Prep program implementation.
- Given that applied academics is a primary thrust of Tech Prep, it appears that curriculum development and selection needs to be more of a priority during the 1994-1995 year, particularly related to the integration of academic and vocational instruction.

- Little evidence was observed as to concentrated collaborative efforts between vocational and academic teachers to develop and redesign curriculum that will facilitate the integration of applied academics.

- The primary approach to curriculum development is to purchase or slightly modify existing materials rather than engaging in extensive curriculum development and redesign.

- At present, it appears that marketing efforts have focused on making various constituencies aware of Tech Prep. As consortiums move into more advanced stages of development a more specific focus needs to be on career clusters and student recruitment into Tech Prep.

- Program effects are difficult to measure at this point due to the fact that the consortia were in the process of program implementation and as well as in defining who is considered to be a Tech Prep student.

- It will be vitally important that methods be developed to assess and document program effects in order for Tech Prep to merit continued federal funding.

- Methods should be developed for assessing and documenting the Tech Prep effects on student dropout rates.

- Program goals need to be clearly identified and defined to assist with the evaluation of Tech Prep efforts.

- There is an ongoing need for dialogue and information exchange among consortiums.

- There is a need to continue the dialogue concerning "skill enhanced" opportunities for students.

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APPENDIX M

1994 SECONDARY ENROLLMENT

SECONDARY	UNDUPLICATED ONLY			UNDUPLICATED AND DUPLICATED							
	TOT ENR	TOTAL		REG VO-TE-ED	DISADV INCLUDES LEP	LEP	DISABLED	CORR	SP/DH /SPW	GENDER EQ (NON-TRAD)	ADULT
PROGRAM AREA		MALE	FEMALE								
AGRICULTURE	16,862	12,550	4,312	12,544	3,045	2	1,273	***	***	***	41
MARKETING	9,258	4,215	5,043	7,312	1,608	4	338	***	***	***	10
CONS/H'MKTING	62,285	19,059	43,226	44,410	14,076	8	3,799	***	***	***	0
OCC HOME EC	749	95	654	321	296	0	132	***	***	***	15
INDUSTRIAL *****	14,147	11,813	2,334	6,678	5,093	16	2,376	***	***	***	868
HEALTH	1,999	262	1,737	1,125	604	3	270	***	***	***	20
BUSINESS	10,492	2,622	7,870	7,993	2,158	13	341	***	***	***	530
TECHNOLOGY ED/ INDUSTRIAL ARTS	94,587	*	*	NA	*	*	*	NA	NA	NA	NA
VOC PREP	1,112	731	381	1	672	9	439	–	–	–	0
GRAND TOTAL	116,904	51,347	65,557	80,384	27,552	55	8,968	0	***126	***446	1,484
	**211,491							****1,299	****154	****4,321	

* No breakouts of gender, disadvantaged, or disabled are collected for Industrial Technology/Arts
** Includes Industrial Technology/Arts enrollment
*** Not collected by occupational program area
**** Includes students/individuals enrolled in occupational program areas and/or receiving supportive services
***** Includes Technical Education

APPENDIX M

1994 SECONDARY ENROLLMENT (CONTINUED)

SECONDARY	UNDUPLICATED AND DUPLICATED				UNDUPLICATED						
	LINKAGE				PLACEMENT						
							EMPLOYED				
PROGRAM AREA	TECH-PREP	CO-OP	APPR	WK-STUDY	COMPLETER 1993	CONT ED	R'LTD	OTHER	MIL	OTHER	CURRENT TEACHERS
AGRICULTURE	239	0	NA	NA	4,242	1,660	1,277	735	194	376	303
MARKETING	119	494	NA	NA	6,625	2,312	2,587	684	259	783	203
CONS/HMKTING	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	643
OCC HOME EC	118	106	NA	NA	378	149	67	77	3	82	24
INDUSTRIAL *****	1,550	1,292	NA	NA	6,597	1,490	1,771	2,069	378	889	504
HEALTH	239	35	NA	NA	1,286	519	335	242	17	173	74
BUSINESS	480	97	NA	NA	5,099	2,433	1,115	831	119	601	376
TECHNOLOGY ED/ INDUSTRIAL ARTS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	848
VOC PREP	NA	0	NA	NA	NA	NA	0	0	0	0	26
GRAND TOTAL	*2,745	2,024	NA	NA	24,227	8,563	7,152	4,638	970	2,904	3,001

* Estimated enrollment based on reports from Tech Prep Education consortia coordinators. Enrollment reporting system to collect actual Fiscal Year 1995 enrollment data is under development.

APPENDIX M

1994 POSTSECONDARY ENROLLMENT

POSTSECONDARY	UNDUPLICATED ONLY			UNDUPLICATED AND DUPLICATED							
	TOT ENR	TOTAL		REG VO-TE-ED	DISADV INCLUDES LEP	LEP	DISABLED	CORR	SP/DH /SPW	GENDER EQ (NON-TRAD)	ADULT
PROGRAM AREA		MALE	FEMALE								
AGRICULTURE	3,729	2,699	1,030	3,419	280	1	30	*	*	*	3,076
MARKETING	9,597	4,387	5,210	6,563	2,863	22	171	*	*	*	2,378
CONS/H'MKTING	7,812	1,850	5,962	4,544	711	0	2,557	*	*	*	7,779
OCC HOME EC	12,504	966	11,538	10,584	1,666	12	254	*	*	*	9,315
INDUSTRIAL ***	52,414	42,167	10,247	46,666	4,856	129	892	*	*	*	36,955
HEALTH	16,993	3,603	13,390	12,660	3,657	84	676	*	*	*	7,885
BUSINESS	52,585	19,155	33,430	45,715	5,543	96	1,327	*	*	*	25,802
GRAND TOTAL	155,634	74,827	80,807	130,151	19,576	344	5,907	0	*3,386	*667	93,190
								**315	**7,513	**2,684	

* Not collected by occupational program area

** Includes students/individuals enrolled in occupational program areas and/or receiving supportive services

APPENDIX M

1994 POSTSECONDARY ENROLLMENT (CONTINUED)

POSTSECONDARY	UNDUPLICATED AND DUPLICATED				UNDUPLICATED						
	LINKAGE				PLACEMENT						
							EMPLOYED				
PROGRAM AREA	TECH-PREP	CO-OP	APPR	WK-STUDY	COMPLETER 1993	CONT ED	R'LTD	OTHER	MIL	OTHER	CURRENT TEACHERS
AGRICULTURE	62	0	0	NA	145	18	86	26	0	15	54
MARKETING	31	0	0	NA	300	25	180	47	1	47	260
CONS/H'MKTING	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39
OCC HOME EC	30	0	0	NA	241	32	124	36	0	49	118
INDUSTRIAL ***	405	0	6,648	NA	2,105	346	1,204	238	11	306	803
HEALTH	63	0	0	NA	2,766	162	2,104	92	4	404	706
BUSINESS	125	0	0	NA	1,321	134	660	229	1	297	970
GRAND TOTAL	* 716	0	6,648	NA	6,878	717	4,358	668	17	1,118	2,950

* Estimated enrollment based on reports from Tech Prep Education consortia coordinators. Enrollment reporting system to collect Fiscal Year 1995 enrollment data is under development.

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